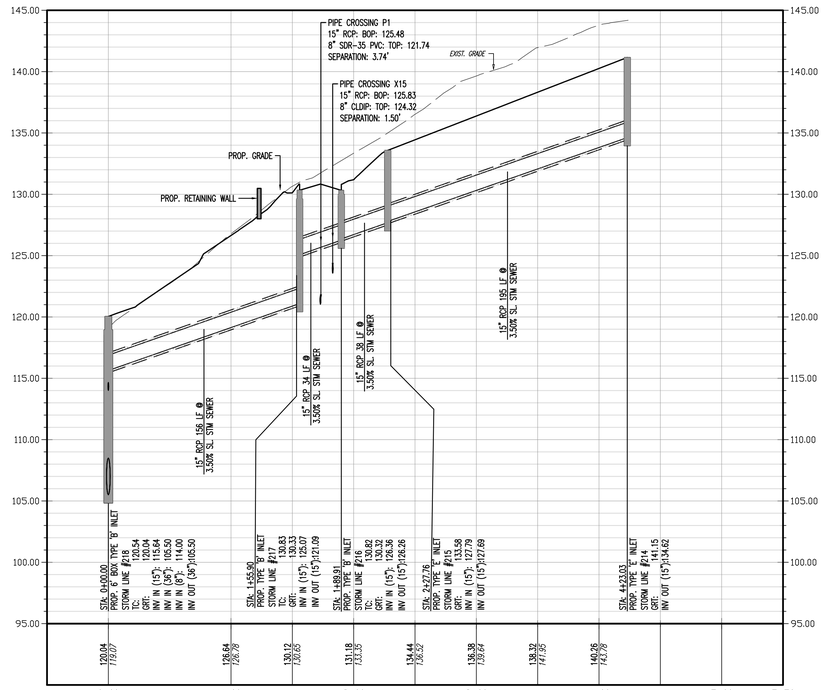
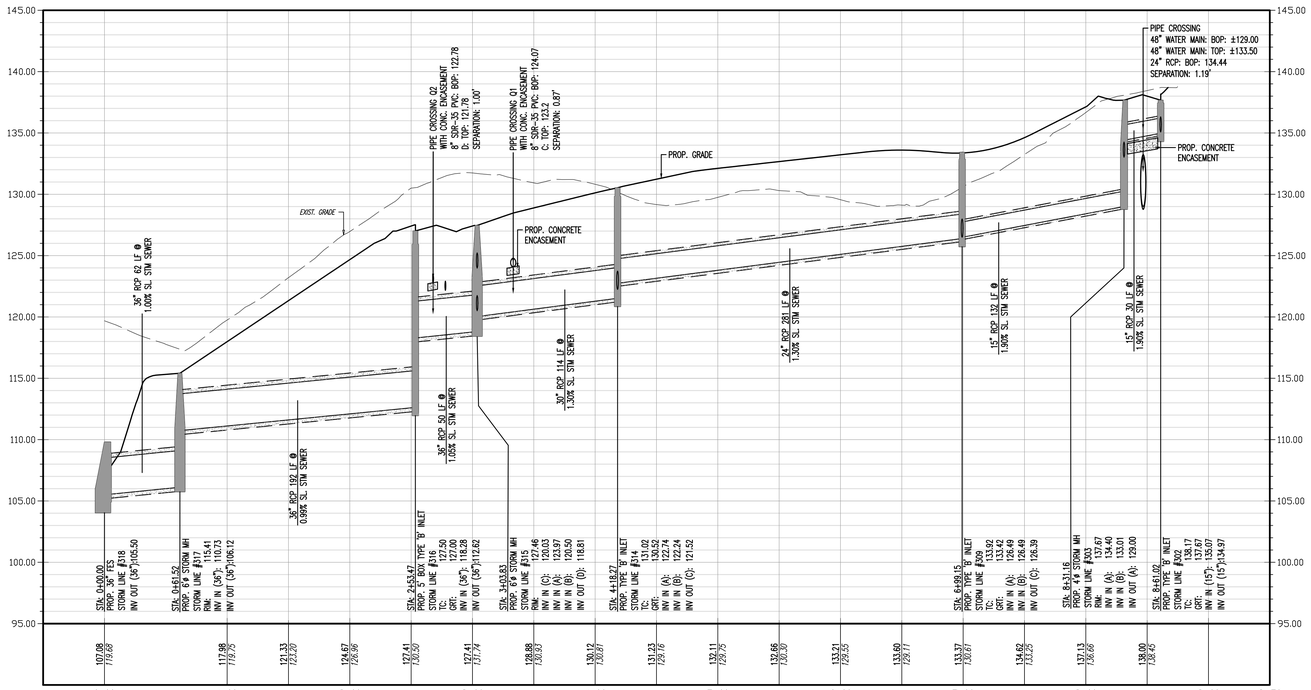
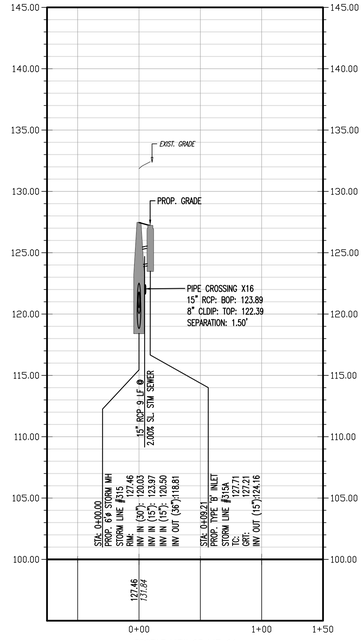


PROFILE VIEW OF SD-P
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF SD-Q
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF LAT-Q1
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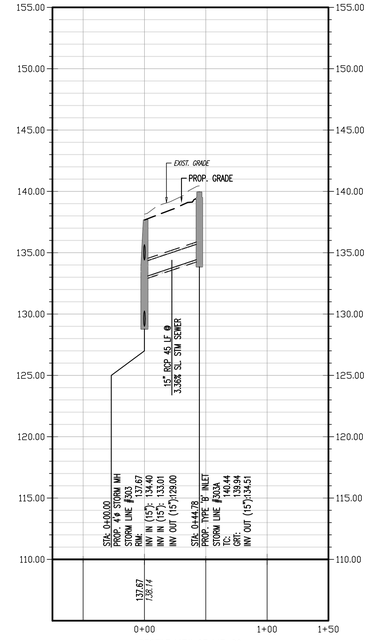
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF LAT-Q2
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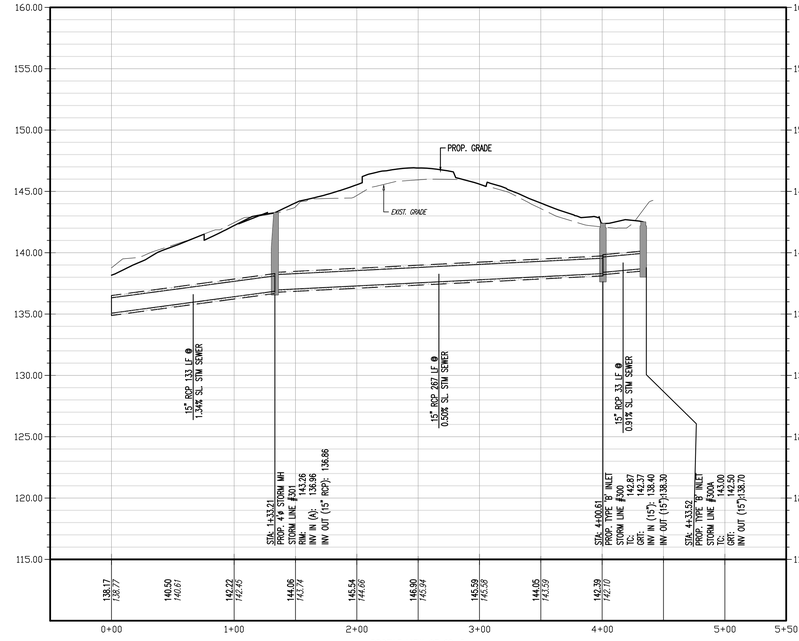
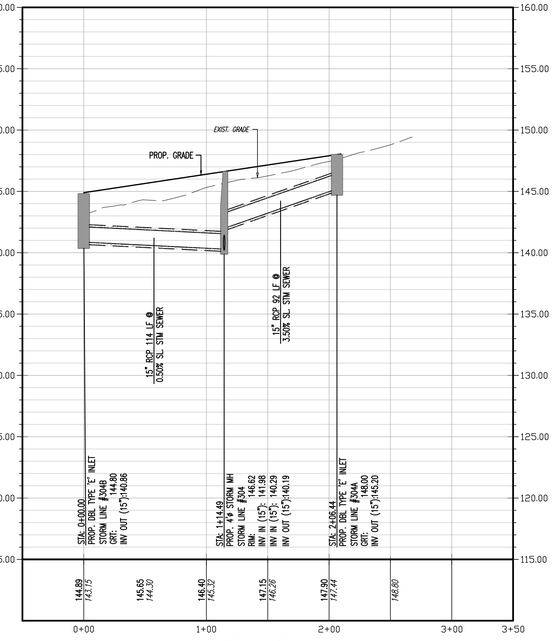
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF SD-R
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF SD-S
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

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File: P:\2EDPC PROJECTS\0043 Shorbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\0431401SXP.DWG, ---> 41 STORM DRAIN PROFILES

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REV.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJR
15	09/03/19	REV. PER COUNTY COMMENTS	AJR
14	07/17/19	REV. PER COUNTY COMMENTS	AJR
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BG
12	05/01/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS	AJR/JH
11	03/27/19	REV. PER COUNTY COMMENTS	AJR/JH
10	02/11/19	REVISIONS PER TOWNSHIP COMMENTS	AJR/JH
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJR/BG
8	11/21/18	REV. PER COUNTY COMMENTS	AJR/BG
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJR/BG
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJR/BG
5	07/17/18	REV. PER TOWNSHIP & SRVC COMMENTS	AJR
4	05/14/18	REV. PER COUNTY COMMENTS	AJR/BG
3	04/19/18	REV. PER TOWNSHIP, RCE & MISC COMMENTS	AJR/BG
2	01/16/18	REV. PER COUNTY COMMENTS	BG
1	12/01/17	REV. PER COUNTY COMMENTS	BG

COMMENT: **FINAL FOR SEWER DESIGN**

DJD — CONSTRUCTION CHECK — 09/25/18 — DATE
— — CONSTRUCTION CHECK — DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK: 28005, LOT: 65; TAX MAP SHEET #55
GEORGETOWN-FRANKLIN TPKE. & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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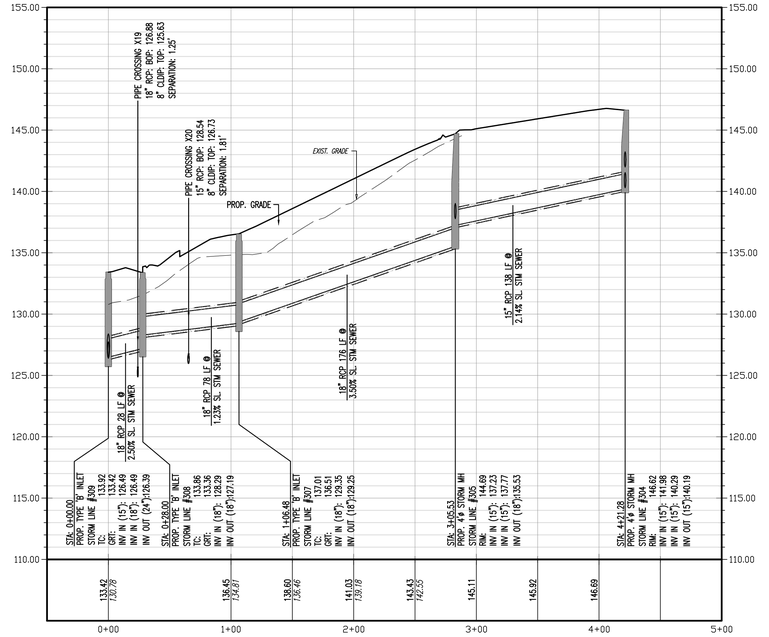
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

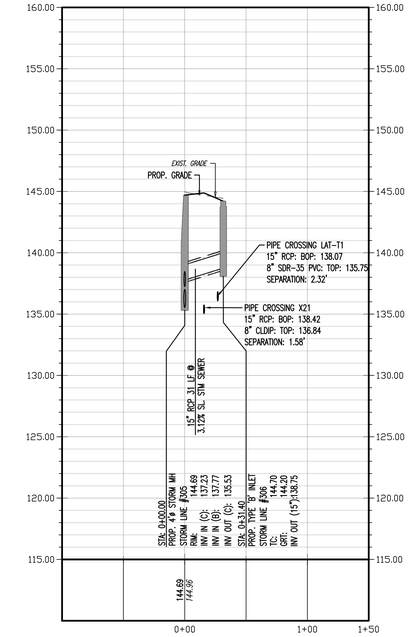
TITLE:
STORM DRAIN PROFILES

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	BG	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: **41** OF 77 — Rev. #: 16



PROFILE VIEW OF SD-T
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF LAT-T1
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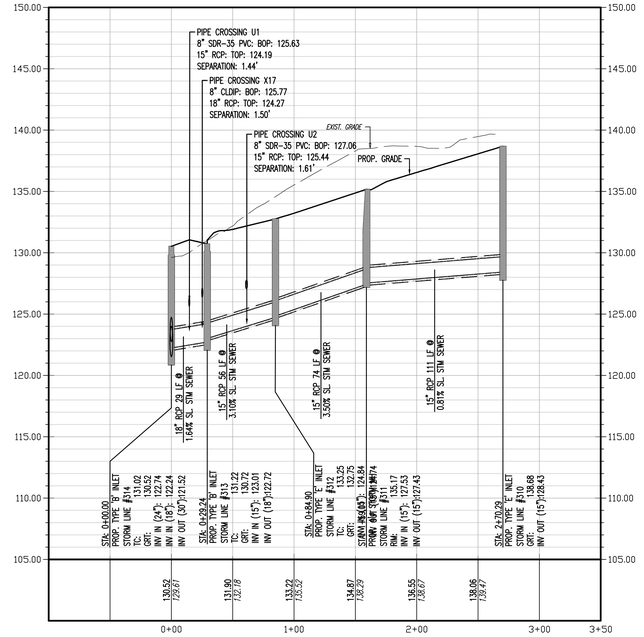
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF SD-U
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

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NO.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJW
15	09/03/19	REV. PER COUNTY COMMENTS	AJW
14	07/17/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BJC
12	05/01/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JH
11	03/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/JH
10	02/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/JH
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/JH
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JH
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/JH
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JH
5	07/17/18	REV. PER TOWNSHIP & SRVC COMMENTS	AJW
4	04/19/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JH
3	04/19/18	REV. PER TOWNSHIP, SCD & R&SC COMMENTS	AJW/JH
REV.	DATE	COMMENTS	BY

COMMENT: **FINAL FOR SEWER DESIGN**

DJD — CONSTRUCTION CHECK — 09/25/18 — DATE
— — CONSTRUCTION CHECK — DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK: 28005, LOT: 65; TAX MAP SHEET #55
CORNER OF FRANKLIN TURNPIKE (CR 533) & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE:
STORM DRAIN PROFILES

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No:			CHECKED BY:
0043-14-015			JDS

SHEET No: **42** OF 77
Rev. #: 16

Plotted: 11/06/19 – 1:33 PM, By: bgaudin
File: P:\DEDPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\043140155XP.DWG, ----> 42 STORM DRAIN PROFILES

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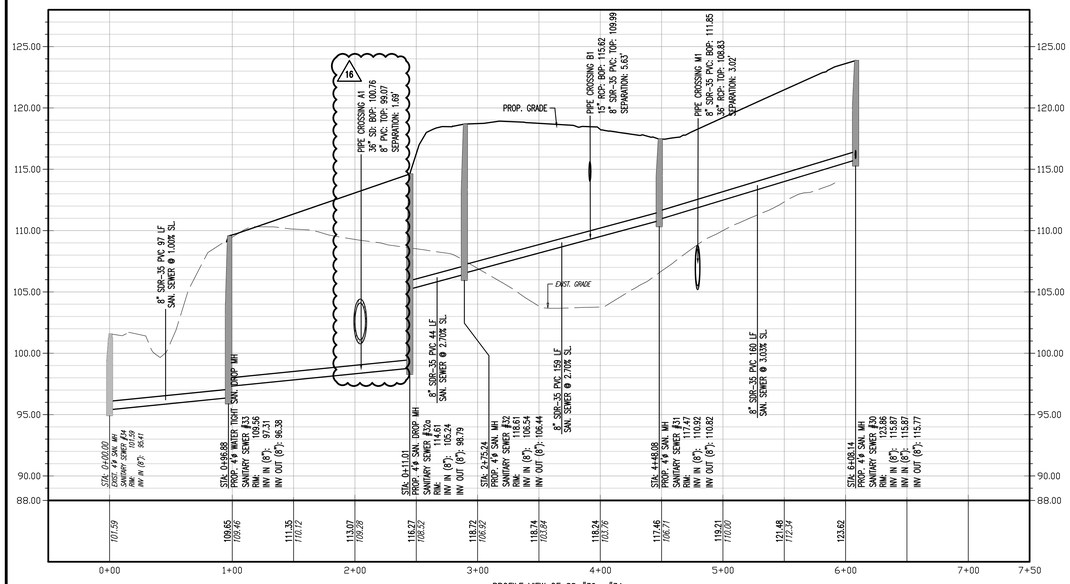
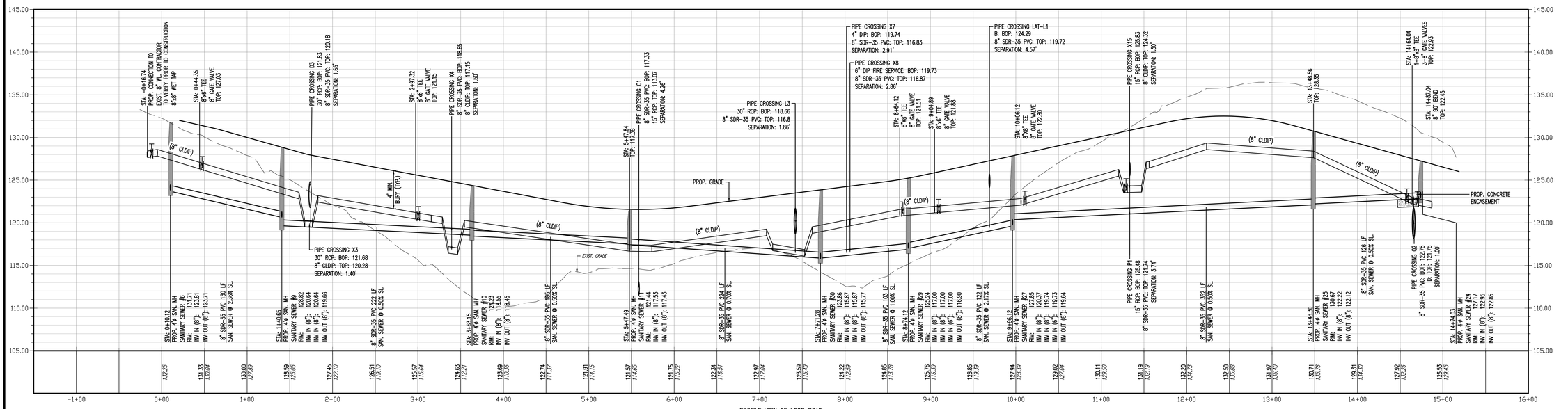


PROFILE VIEW OF SS #30– #34
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF LOOP ROAD
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

REV.	DATE	COMMENTS	
16	11/01/19	REV. PER FIELD CHANGES	AJH
15	09/09/19	REV. PER COUNTY COMMENTS	AJH
14	07/11/19	REV. PER COUNTY COMMENTS	AJH
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BG
12	05/01/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS	MR/AJH
11	03/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	MR/AJH
10	02/11/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	MR/JDS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	MR/BG
8	11/21/18	REV. PER COUNTY COMMENTS	MR/BG
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	MR/BG
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	MR/BG
5	07/17/18	REV. PER TOWNSHIP & ERSC COMMENTS	AJH
4	06/19/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	MR/BG
3	04/19/18	REV. PER TOWNSHIP, SCD & ERSC COMMENTS	MR/BG
2	03/16/18	REV. PER COUNTY COMMENTS	BG

COMMENT: **FINAL FOR SEWER DESIGN**

DJD — CONSTRUCTION CHECK — 09/25/18 — DATE
— — CONSTRUCTION CHECK — DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK: 28005, LOT: 65; TAX MAP SHEET #55
601 HEATHERFIELD ROAD & 1 RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: SANITARY SEWER & WATERLINE PROFILES

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	BG	JH
PROJECT No:			CHECKED BY:
0043-14-015			JDS

SHEET No: 43 OF 77 — Rev. #: 16

Plotted: 11/06/19 – 1:33 PM, By: bgrubin
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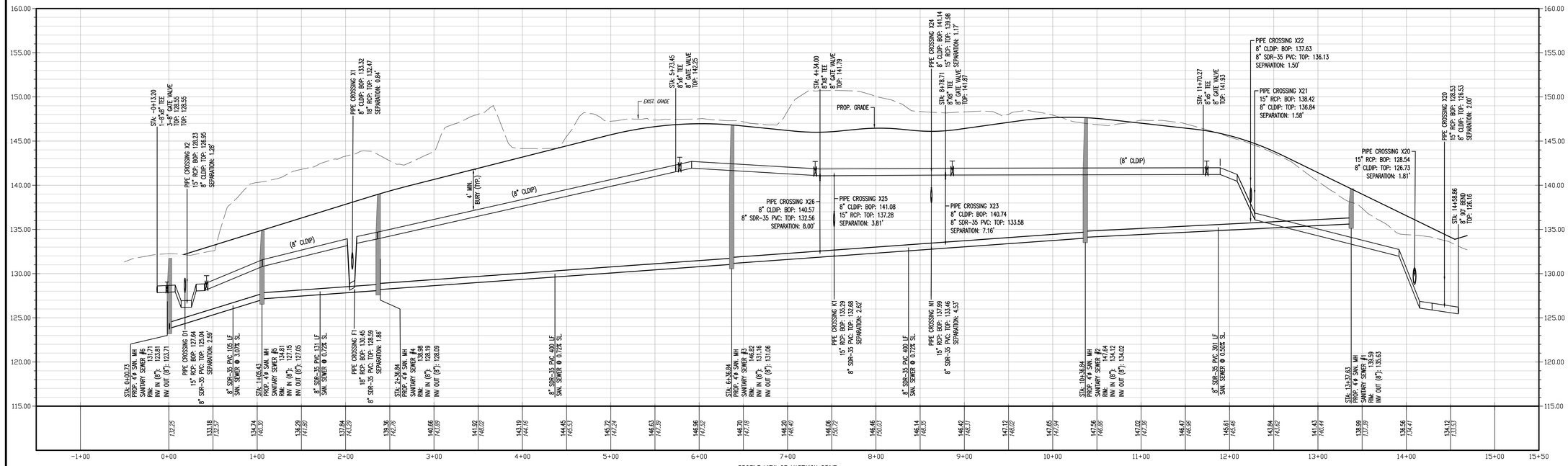
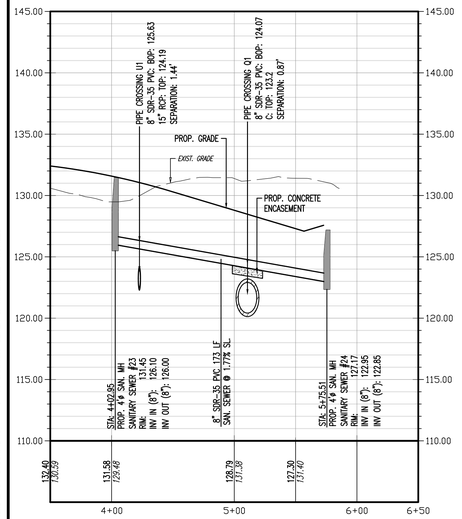
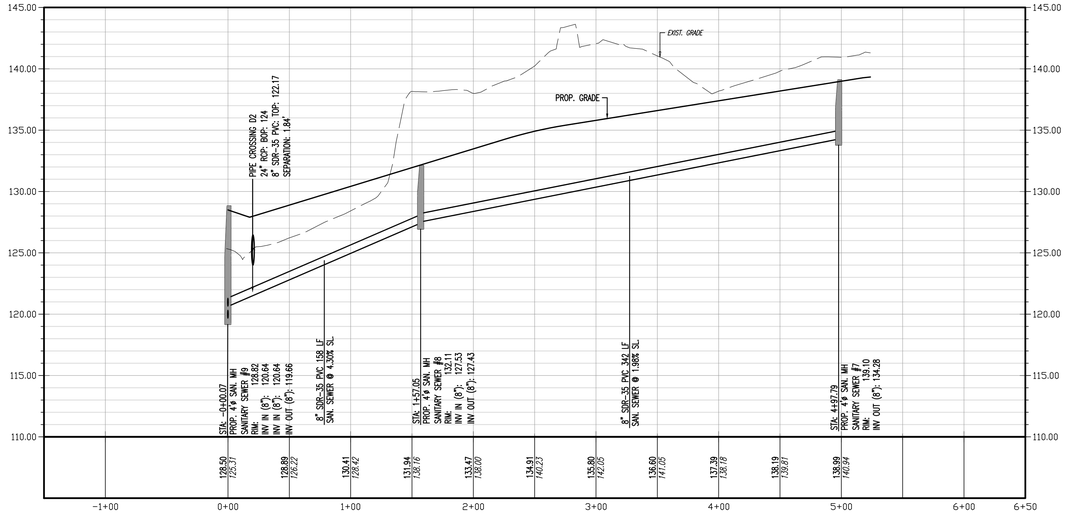


PROFILE VIEW OF HARTWICK DRIVE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF TAMWORTH DRIVE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF LANE A
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

NO.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJH
15	09/03/19	REV. PER COUNTY COMMENTS	AJH
14	07/17/19	REV. PER COUNTY COMMENTS	AJH
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BG
12	05/01/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS	AJH/JH
11	03/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJH/JH
10	02/27/19	REV. PER COUNTY COMMENTS	AJH/JH
9	12/04/18	REV. PER RESOLUTION COMPLIANCE	AJH/JH
8	11/21/18	REV. PER COUNTY COMMENTS	AJH/JH
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJH/JH
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJH/JH
5	07/17/18	REV. PER TOWNSHIP & SRVC COMMENTS	AJH
4	05/21/18	REV. PER COUNTY COMMENTS	AJH/JH
3	04/19/18	REV. PER TOWNSHIP, SCD & SRVC COMMENTS	AJH/JH
NO.	DATE	COMMENTS	BY

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18
CONSTRUCTION CHECK DATE

— —
CONSTRUCTION CHECK DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC.**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 66; TAX MAP SHEET #35
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MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **SANITARY SEWER & WATERLINE PROFILES**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	BG	JH
PROJECT No.			CHECKED BY:
0043-14-015			JDS

SHEET No: **44** OF 77
Rev. #: 16

Plotted: 11/06/19 – 1:34 PM, By: bgaudin
File: P:\DEPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\043140155XP.DWG, ----> 44 SANITARY SEWER & WATERLINE PROFILES

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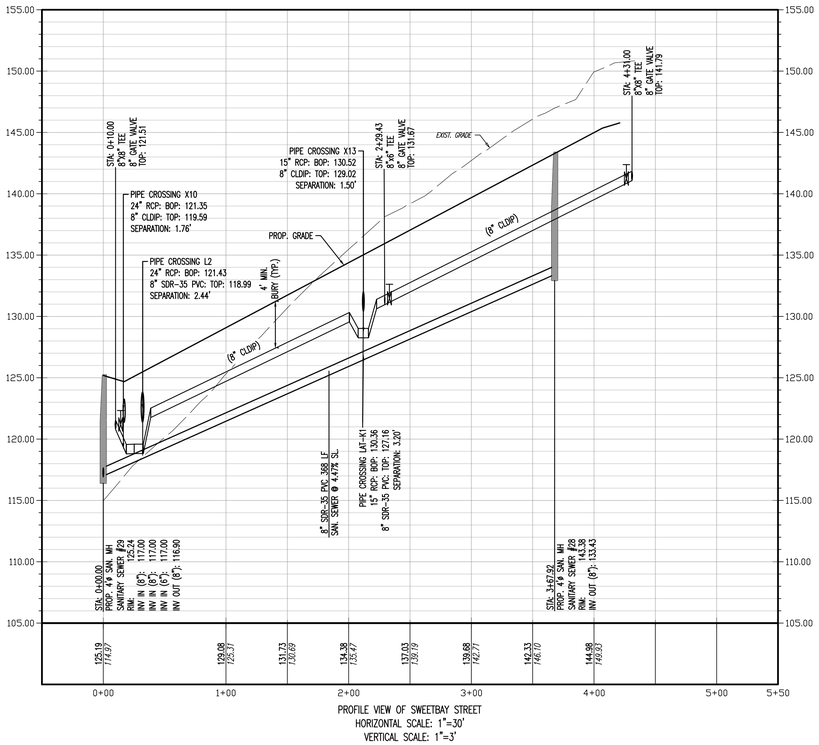
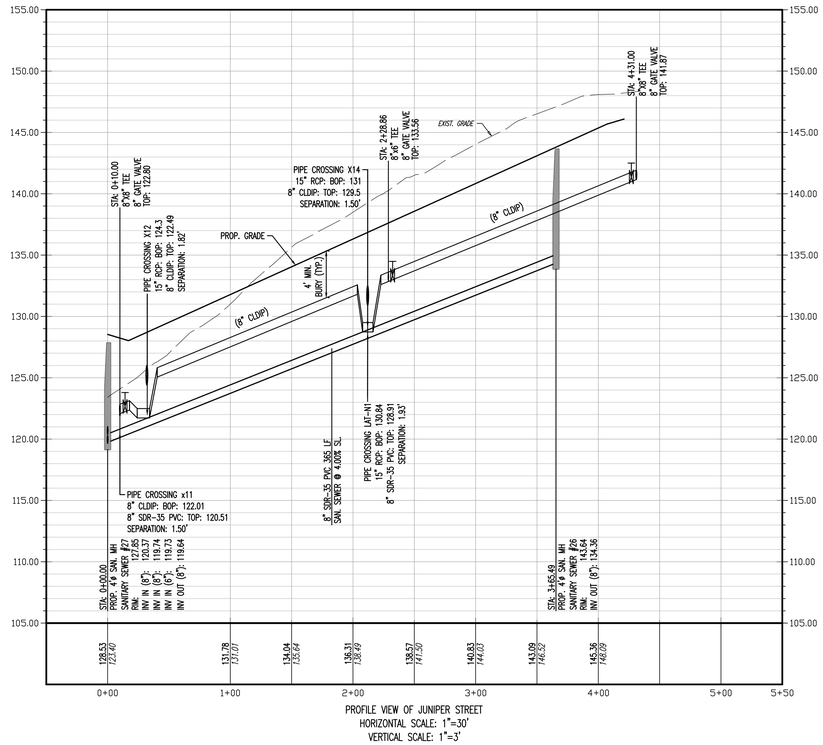
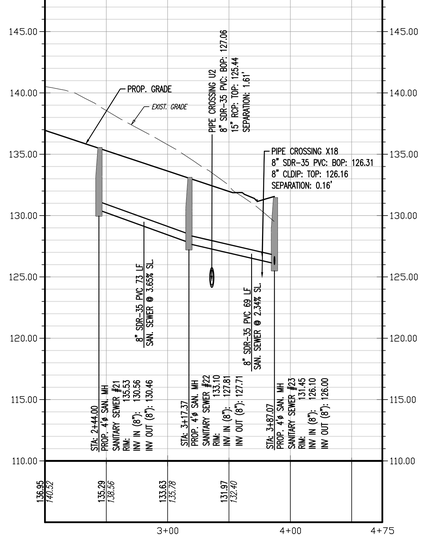


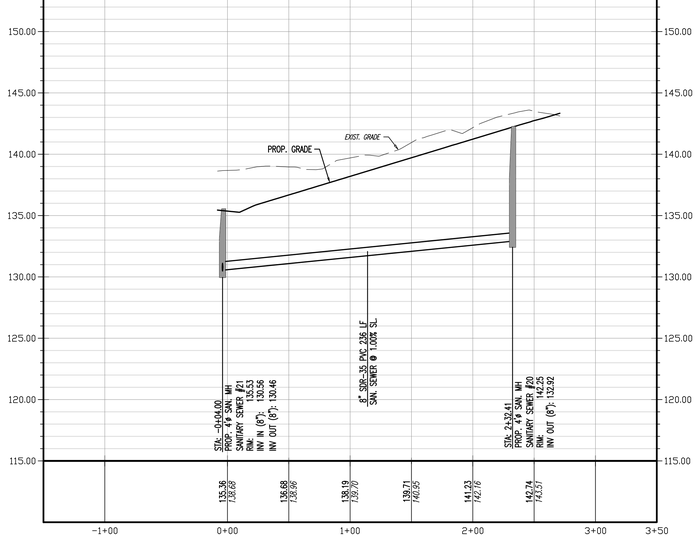
PROFILE VIEW OF SWEETBAY STREET
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF JUNIPER STREET
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF LANE E
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF LANE G
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

Plotted: 11/06/19 – 1:34 PM, By: bgrubin
File: P:\DESPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\043140155XP.DWG, ---> 45 SANITARY SEWER & WATERLINE PROFILES

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NO.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJH
15	09/03/19	REV. PER COUNTY COMMENTS	AJH
14	07/17/19	REV. PER COUNTY COMMENTS	AJH
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BG
12	05/01/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS	AJH/JH
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJH/JH
10	02/27/19	REVISIONS PER TOWNSHIP COMMENTS	BG/JH
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJH/BG
8	11/21/18	REV. PER COUNTY COMMENTS	AJH/BG
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJH/BG
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJH/BG
5	07/17/18	REV. PER TOWNSHIP & SRSC COMMENTS	AJH
4	04/25/18	REV. PER TOWNSHIP & SRSC COMMENTS	AJH/BG
3	04/19/18	REV. PER TOWNSHIP, SCD & SRSC COMMENTS	AJH/BG
2	01/26/18	REV. PER COUNTY COMMENTS	BG

COMMENT: **FINAL FOR SEWER DESIGN**

DJD — CONSTRUCTION CHECK
09/25/18 — DATE
— CONSTRUCTION CHECK
— DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK: 28005, LOT: 65; TAX MAP SHEET #55
CORNER OF GEORGETOWN-TPKE. & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **SANITARY SEWER & WATERLINE PROFILES**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	BG	JH
PROJECT No:			CHECKED BY:
0043-14-015			JDS

SHEET No: **45** OF 77
Rev. #: 16

PLANTING SPECIFICATIONS

1. SCOPE OF WORK.
   A. THIS WORK SHALL CONSIST OF PERFORMING, CLEARING AND SOIL PREPARATION, FINISH GRADING, PLANTING AND DRAINAGE, INCLUDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT.
2. MATERIALS
   A. GENERAL – ALL MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION (D.O.T.) MANUAL OF ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION) OR APPROVED EQUAL.
   B. PLANTS – ALL PLANTS SHALL BE HEALTHY OR NORMAL GROWTH, WELL ROOTED, FREE FROM DISEASE AND INSECTS.
   C. TOPSOIL – LOAM SILT, HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, pH RANGE BETWEEN 4.5 – 7, BE FREE OF DEBRIS, ROCKS LARGER THAN TWO INCHES (2"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
   D. MULCH – FOUR (4") INCHES DOUBLE SHREDDED HARDWOOD BARK MULCH.
3. FERTILIZER AND SOIL CONDITIONER – PLANTED AREAS
   A. ORGANIC FERTILIZER – SHALL BE PROCESSED SEWER SLUDGE WITH MINIMAL CONTENT OF 1% NITROGEN AND 2% PHOSPHORIC ACID, EQUAL TO "NITROHUMUS".
   B. ORGANIC FERTILIZER AND SOIL CONDITIONER – SHALL BE "GRO– POWER" AND ORGANIC BASE MATERIALS COMPRISED OF DECOMPOSED ANIMAL AND VEGETABLE MATTER AND COMPOSTED TO SUPPORT BENEFICIAL SOIL CONTAINING NO POULTRY OR HUMAN WASTE. GUARANTEED ANALYSIS (3–3–1): NITROGEN 5% PHOSPHATE 5%, POTASH 1% 50% HUMUS AND 15% HUMIC ACIDS.
4. GENERAL WORK PROCEDURES
   A. LANDSCAPE WORK SHALL COMMENCE AS SOON AS THOSE PORTIONS OF THE SITE ARE AVAILABLE. CONTRACTOR TO UTILIZE WORKMANLIKE STANDARDS IN PERFORMING ALL LANDSCAPE OPERATIONS. ALL DEBRIS AND REFUSE RESULTING FROM LANDSCAPE WORK SHALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROPERLY STOCKPILED OR DISPOSED OF. ALL PAVED SURFACES SHALL BE SWEPT CLEAN AT THE END OF EACH DAYS' WORK.
5. WEEDING
   A. BEFORE AND DURING PRELIMINARY GRADING AND FINISH GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
6. TOPSOILING
   A. CONTRACTOR TO PROVIDE A 4" THICK TOPSOIL LAYER IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO PRODUCE A 4" UNSETTLED THICKNESS, TOPSOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON–SITE TOPSOIL UTILIZED IN ALL PLANTING AREAS TO ASSIST pH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM.
7. SOIL CONDITIONING:
   A. CULTIVATE ALL AREAS TO BE PLANTED TO A DEPTH OF 6". ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE. SPREAD EVENLY IN ALL PLANTING AREAS AND TILL (2 DIRECTIONS) INTO TOP 4" WITH THE FOLLOWING PER 1,000 SQ. FT.:
      20 POUNDS "GRO–POWER"
      100 POUNDS AGRICULTURAL GYPSUM
      20 POUNDS NITROFORM (COURSE) 38–0–0 BLUE CHIP
   SOIL MODIFICATIONS
   A. THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. USE COMPOSTED BARK, RECYCLED YARD WASTE OR OTHER ORGANIC MATERIALS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A pH HIGHER THAN 7.5.
   B. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) SOILS BY ADDING PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE.
   C. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
8. PLANTING
   POSITION TREES AND SHRUBS AS THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
   A. PLANTING PITS SHALL BE DEEPER THAN THE ROOT BALL, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PIT SHALL HAVE BEVELED BOTTOMS, WITH THE TOP SCARIFIED AND THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
      1 PART PEAT MOSS BY VOLUME
      1 PART COW MANURE BY VOLUME
      3 PARTS TOPSOIL BY VOLUME
      21 GRAM 'AGRIFORM' PLANTING TABLETS AS FOLLOWS:
      TABLETS PER 1 GAL. PLANT
      3 TABLETS PER 5 GAL. PLANT
      4 TABLETS PER 15 GAL. PLANT
      LARGER PLANTS (2) TWO TABLETS PER 1/2" DIAM. OF TRUNK CALIPER
   B. PREPARED SOIL SHALL BE LIMED EVENLY AT BOTTOM OF PIT, INCLUDING BALL OF PLANT 1/2 WAY, AND INSERT PLANT TABLETS. COMPLETE BACK FILL AND WATER THOROUGHLY.
   C. ALL PLANTS SHALL BE SET SO THAT, THEY BEAR THE SAME RELATION TO THE REQUIRED GRADE AS THEY BORE TO THE NATURAL GRADE BEFORE BEING TRANSPLANTED.
   D. PREPARE RAISED EARTH BASIN AS WIDE AS PLANTING HOLE OF EACH TREE.
   E. WATER IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACK FILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
   F. PRUNE ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS TO A MIN. OF 7' BRANCHING HEIGHT.
9. GROUND COVER
   A. ALL GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING GROUND COVER.
   B. SPACING AND VARIETY OF GROUND COVER SHALL BE AS SHOWN ON PLANTING DRAWINGS.
   C. IMMEDIATELY AFTER PLANTING GROUND COVER, CONTRACTOR SHALL THOROUGHLY WATER GROUND COVER.
   D. ALL GROUND COVER AREAS SHALL BE CULTIVATED WITH A PRE–EMERGENT HERBICIDE APPLICATION. GROUND COVER AREAS SHALL BE WEEDED PRIOR TO APPLYING PRE–EMERGENT. PRE–EMERGENT TO BE APPLIED AS PER MANUFACTURER'S RECOMMENDATION.
10. FINISH GRADING
   A. ALL AREAS WILL BE RECEIVED BY THE CONTRACTOR AT SUBSTANTIALLY PLUS/MINUS ± FOOT OF FINISH GRADE.
   B. FINISH GRADING PLANTING AREAS SHALL BE GRADED TO A SMOOTH EVEN SURFACE WITH NO ABRUPT CHANGE OF SURFACE, UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT. ROCKS ADJACENT TO CURB, BUILDING, SHALL SLOPE AWAY.
   C. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER.
11. GUARANTEE
   A. CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF TWO (2) YEAR FROM ACCEPTANCE OF JOB. OWNER TO SECURE A MAINTENANCE BOND FROM THE CONTRACTOR FOR TEN PERCENT (10%) OF THE TOTAL INSTALLATION WHICH WILL BE RELEASED AT THE COMMENCEMENT OF THE GUARANTEE PERIOD AND PASSES A FINAL INSPECTION BY THE OWNER OR OWNERS REPRESENTATIVE.
12. CLEANUP
   A. UPON THE COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
   B. MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS. TIGHTEN AND REPAIR STAKE AND GUY SUPPORTS AND RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WRAPPING. SPRAY WITH HERBICIDE AS REQUIRED TO KEEP TREE PITS FREE OF WEEDS.
   C. MAINTAIN LAWNS BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF WEEDS AND BARE AREAS.
13. MAINTENANCE (ALTERNATE BID) COST PER MONTH AFTER INITIAL 90–DAY MAINTENANCE PERIOD.

LANDSCAPE MAINTENANCE NOTES - SOROBOLUS HETEROLEPIS SLOPES:

THE SLOPES OF THE CENTRAL PARK SPACE ARE PLANTED WITH A MONOCULTURE OF SPOROBOLUS HETEROLEPIS. THESE AREAS REQUIRE MINIMAL MAINTENANCE. IF PLANTED SLOPES SHOULD BE MAINTAINED AS FOLLOWS:

- PREEMERGENT HERBICIDE CAN BE APPLIED IN THE EARLY SPRING, PRIOR TO THE GROWING SEASON BEGINNING.
- ONCE PER MONTH DURING THE GROWING SEASON, THE SLOPES SHOULD BE MONITORED FOR ANY WEEDS THAT ESTABLISH THEMSELVES, AND WEEDS SHOULD BE REMOVED BY HAND. ANY PLANT THAT IS NOT SPOROBOLUS HETEROLEPIS OR THE PLANTED TREES SHOULD BE CONSIDERED A WEED.
- ONCE PER YEAR, IN LATE WINTER/EARLY SPRING, PRIOR TO THE GRASSES SHOOTING NEW GROWTH, CUT THE GRASSES BACK TO A HEIGHT OF 6"–8" MINIMUM.
- THE GRASSES SHOULD BE LEFT WITH THE DEAD FOLIAGE THROUGH WINTER. THIS ADDS WINTER INTEREST IN THE FORM OF THE GOLDEN/BROWN FOLIAGE, AND ACTS AS A MULCH BARRIER PREVENTING BARE SOIL FROM EROSION AND WEED ESTABLISHMENT.
- ONCE PER YEAR, MULCH SHOULD BE FRESHENED UP BY RAKING ANY REMAINING MULCH FROM THE PRIOR YEAR, AND REAPPLYING 2"–3" OF FRESH MULCH. THIS SHOULD BE DONE AFTER GRASSES HAVE BEEN CUT BACK IN THE LATE WINTER/EARLY SPRING AND AFTER PREEMERGENT HERBICIDE HAS BEEN APPLIED.

PLANTING NOTES

1. PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED; INCLUDING ALL LABOR, MATERIALS, PLANTS, EQUIPMENT, INCIDENTALS, AND CLEAN–UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT. LAYOUT IS TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHING; DENSELY FOLIATED; VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND DISEASE.
4. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE MADE FOR A GROWTH GUARANTEE OF AT LEAST TWO (2) YEARS FROM THE DATE OF ACCEPTANCE FOR TREES AND SHRUBS. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
6. INSPECTION
   A. INSPECTION OF PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. ANY PLANTS NOT INSTALLED DURING THIS PERIOD WILL BE REJECTED.
7. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH ANSI Z60.1 (REV. 2001) "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
8. ALL PLANTS SHALL BE PLANTED IN AMENDED TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. PLANTING MIX TO BE AS SHOWN ON PLANTING DETAILS. LARGE PLANTING AREAS REQUIRE FERTILIZER AND SOIL CONDITIONING AS STATED IN PLANTING SPECIFICATIONS.
9. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.
10. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION. ALL PLANT MATERIAL SHALL BE SPRAYED WITH "WILT–PRUF" OR EQUAL AS PER MANUFACTURER'S INSTRUCTIONS.
11. SET ALL GROUND COVERS, SHRUBS, AND TREES AT SUCH LEVELS THAT A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PIT.
12. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PIT.
13. ALL INJURED ROOTS SHALL BE PRUNED TO MAKE CLEAN ENDS BEFORE PLANTING UTILIZING CLEAN, SHARP TOOLS. IT IS ADVISABLE TO PRUNE APPROXIMATELY 1/3 OF THE GROWTH OF LARGE TREES (2" CALIPER AND OVER) BY THE REMOVAL OF SUPERFLUOUS BRANCHES, THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. MAIN LEADER OF TREES WILL NOT BE CUT BACK. LONG SIDE BRANCHES, HOWEVER, MUST BE SHORTENED.
14. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
15. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES AS A RESULT OF CONSTRUCTION OPERATIONS. ALL EXISTING TREES SHALL BE FERTILIZED WITH A REGULAR GARDEN FERTILIZER (5–10–5) UPON COMPLETION OF WORK. THE ENTIRE LIMIT OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. DIRECTION SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH SHARP TOOLS AND FILLED AROUND WITH TOPSOIL COMPLETELY SATURATE THESE AREAS WITH WATER. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR IS TO PROTECT ALL EXISTING TREES TO REMAIN BY ERECTING TREE PROTECTION FENCE AT THE DRIP LINE. THIS WILL ENSURE NO CONTACT OF THE ROOT MASS.
16. ALL PLANTING BEDS SHALL BE MULCHED WITH 4" LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH.
17. NON PLANTING AREAS AND SOD SHALL BE ADEQUATELY WATERED OR WATERED TO ESTABLISH THE PROPOSED PLANTS AND LAWN.
18. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE AS SHOWN ON THE APPROVED LANDSCAPE PLAN MUST BE INSTALLED, INSPECTED AND APPROVED BY THE MUNICIPAL ENGINEER OR LANDSCAPE ARCHITECT. PLANTING AND LANDSCAPING OBLIGATIONS IN THIS REGARD AS FOLLOWS: THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER AS REQUIRED BY OR ASSOCIATED WITH A SUBDIVISION OR SITE PLAN APPROVAL BY THE PLANNING BOARD OR ZONING BOARD OF ADJUSTMENT SHALL BE INSTALLED DURING THE FOLLOWING PLANTING SEASONS:

TYPE	DATES
PLANTS	3/15 TO 12/15
LAWN	3/15 TO 6/15
	9/15 TO 12/1

FURTHERMORE, THE FOLLOWING TREE VARIETIES SHALL NOT BE PLANTED DURING THE FALL PLANTING SEASON DUE TO THE HAZARDS ASSOCIATED WITH DIGGING THESE TREES IN THIS SEASON.

ACER RUBRUM	POPULUS VARIETIES
BETULA VARIETIES	PRUNUS VARIETIES
CARPINUS VARIETIES	PYRUS VARIETIES
CRATAEGUS VARIETIES	QUERCUS VARIETIES
KOELREUTERIA	SALIX WEEPING VARIETIES
LIQUIDAMBAR STYRACIFLUA	TILIA TOMENTOSA
MAGNOLIA VARIETIES	ZELKOVA VARIETIES
PLATANUS ACERIFOLIA	

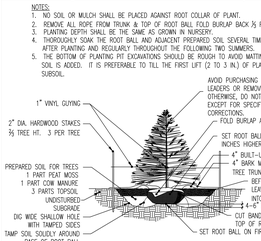
ANY PLANTINGS INSTALLED IN CONFLICT WITH THIS REQUIREMENT MUST RECEIVE THE WRITTEN APPROVAL BY THE MUNICIPAL ENGINEER OR LANDSCAPE ARCHITECT, PRIOR TO PLANTING. FAILURE TO COMPLY WITH THESE REQUIREMENTS WILL REQUIRE THE REMOVAL OF THE PLANTING IN QUESTION. THIS REQUIREMENT DOES NOT APPLY TO SEEDING OR SODDING OR PLANTINGS SPECIFICALLY FOR SOIL STABILIZATION PURPOSES. THE PLANTINGS ASSOCIATED WITH ANY LOT OWN A CERTIFICATE OF OCCUPANCY OUTSIDE THESE PERIODS SHALL BE PROVIDED DURING THE PREVIOUS OR NEXT APPROPRIATE SEASON.

19. ALL DISTURBED AREAS TO BE TREATED WITH TOPSOIL SEED SOD STABILIZATION METHOD.

LANDSCAPING DEFICIENCY PRICING INDEX

KEY	QUANTITY	COST PER TREE	TOTAL COST DIFFERENCE
DEFICIENT TREES	200	$300	$60,000
EVERGREEN TREES (UPSIZED FROM 6'–7' TO 8'–9')	121	$118	$14,278
DECIDUOUS TREES (UPSIZED FROM 2.5"–3" TO 3"–3.5")	185	$270	$49,950
			$64,228

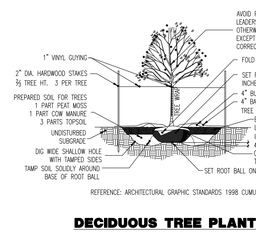
NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL FOLD BURLAP BACK ½ FROM TOP ROOT BALL
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

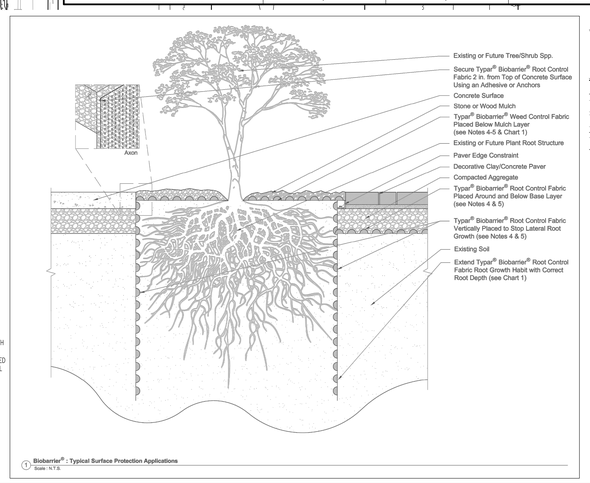
EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL FOLD BURLAP BACK ½ FROM TOP ROOT BALL
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.

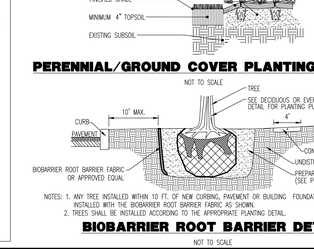


REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



① **Biobarrier® : Typical Surface Protection Applications**
Scale: N.T.S.



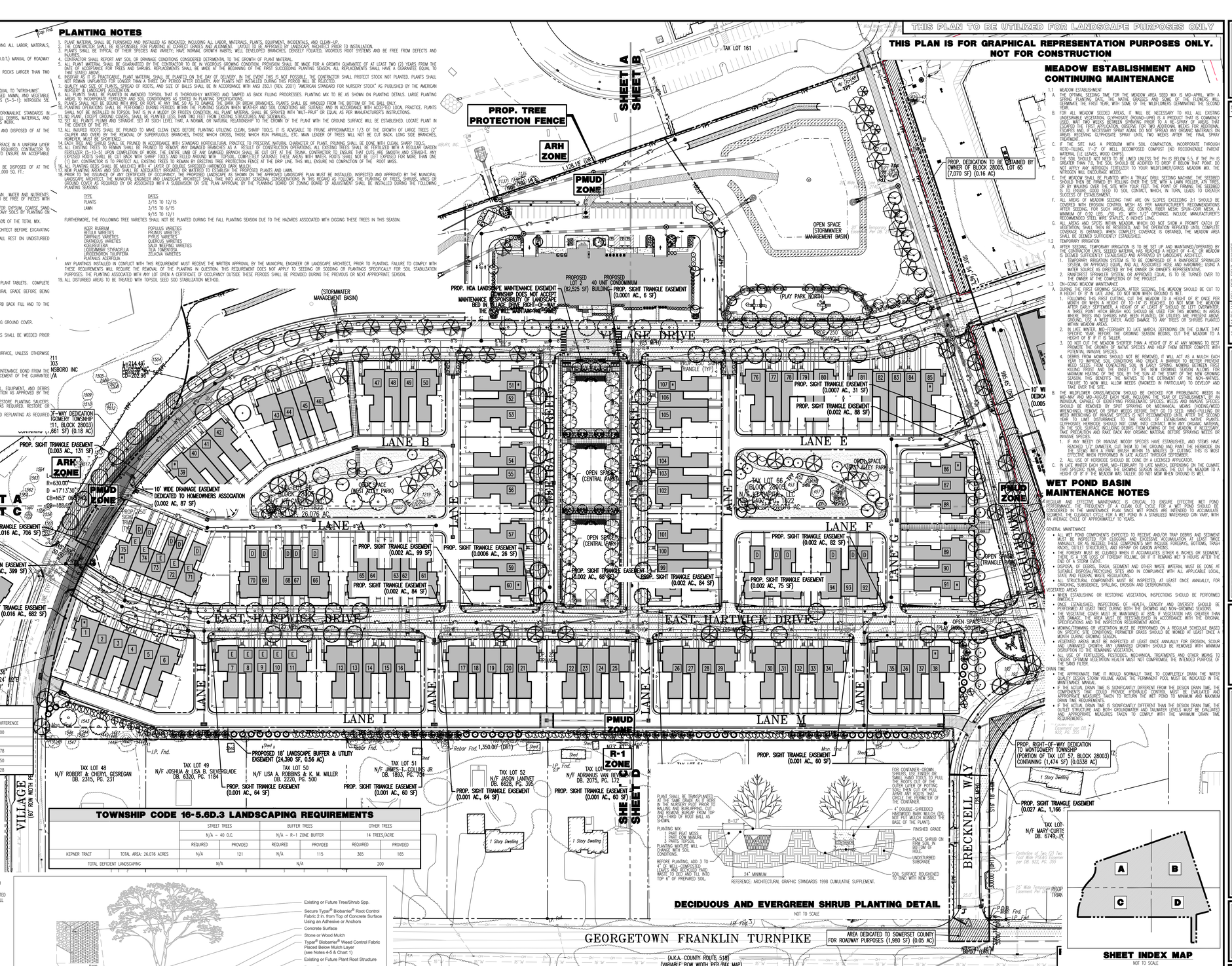
PERENNIAL/GROUND COVER PLANTING DETAIL
NOT TO SCALE

NOTES: 1. ANY TREE INSTALLED WITHIN 10 FT. OF NEW CURBING, PAVEMENT OR BUILDING FOUNDATION SHOULD BE INSTALLED WITH THE BIOBARRIER ROOT BARRIER FABRIC AS SHOWN.
2. TREES SHALL BE INSTALLED ACCORDING TO THE APPROPRIATE PLANTING DETAIL.

BIOBARRIER ROOT BARRIER DETAIL
NOT TO SCALE

TOWNSHIP CODE 16-5.6D.3 LANDSCAPING REQUIREMENTS

		STREET TREES		BUFFER TREES		OTHER TREES	
		N/A – 40 O.C.		N/A – R–1 ZONE BUFFER		14 TREES/ACRE	
		REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED
KEPNER TRACT	TOTAL AREA: 26.076 ACRES	N/A	121	N/A	115	365	165
TOTAL DEFICIENT LANDSCAPING		N/A		N/A		200	


THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY
THIS PLAN IS FOR GRAPHICAL REPRESENTATION PURPOSES ONLY. NOT FOR CONSTRUCTION
TAX LOT 161
SHEET A
SHEET B
PROP. TREE PROTECTION FENCE
ARH ZONE
PMUD ZONE
PROP. DEDICATION TO BE OBTAINED BY OWNER OF BLOCK 28005, LOT 65 (7,070 SF) (0.16 AC)
OPEN SPACE (STORMWATER MANAGEMENT BASIN)
PROPOSED LOT 2 (82,525 SF)
PROPOSED 40 UNIT CONDOMINIUM BUILDING
PROP. HOA LANDSCAPE MAINTENANCE EASEMENT
OWNERSHIP DOES NOT ACCEPT RESPONSIBILITY OF LANDSCAPE MAINTENANCE
BED IN VILLAGE DRIVE RIGHT–OF–WAY THE HOA SHALL MAINTAIN THE SAME)
PROP. SIGHT TRIANGLE EASEMENT (0.0001 AC., 6 SF)
(PLAY PARK NORTH)
VILLAGE DRIVE
(50' ROW WIDTH)
(25 MPH)
PROP. SIGHT TRIANGLE EASEMENT (0.0007 AC., 31 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 88 SF)
LANE B
LANE E
LANE D
LANE C
LANE F
LANE G
LANE H
LANE I
LANE J
LANE K
LANE L
LANE M
OPEN SPACE (CENTRAL PARK)
OPEN SPACE (TRIANGLE PARK)
PROP. SIGHT TRIANGLE EASEMENT (0.0006 AC., 26 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 99 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 68 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 82 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 75 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 84 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.009 AC., 399 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.016 AC., 706 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.016 AC., 682 SF)
PROP. SIGN EASEMENT (0.003 AC., 131 SF)
10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (0.002 AC, 87 SF)
CUMM DEVELOPMENT (86 UNITS) TO BE PERMITTED BY OTHERS
TAX LOT 66 (BLOCK 28005, LOT 66) N/F SHARBELL PLAINSBORO INC. DB./PG. N/A
TAX LOT 67 (BLOCK 28005, LOT 67) N/F SHARBELL PLAINSBORO INC. DB./PG. N/A
TAX LOT 68 (BLOCK 28005, LOT 68) N/F SHARBELL PLAINSBORO INC. DB./PG. N/A
TAX LOT 69 (BLOCK 28005, LOT 69) N/F SHARBELL PLAINSBORO INC. DB./PG. N/A
TAX LOT 111 (BLOCK 28003, LOT 111) N/F MERCER–MIDDLESEX REGIONAL WATER COMMISSION DB. 2214, PG. 1509
NSBORO INC
/A
N/F–WAY DEDICATION TOWNSHIP OF PLAINSBORO (BLOCK 28003, LOT 111) (0.661 SF) (0.18 AC)
ARH ZONE
PMUD ZONE
SHEET A
SHEET C
EAST HARTWICK DRIVE
OPEN SPACE (PLAY PARK SOUTH)
TAX LOT 48 N/F ROBERT & CHERYL GESREGAN DB. 2315, PG. 231
TAX LOT 49 N/F JOSHUA & LISA B. SILVERGLADE DB. 6320, PG. 1184
TAX LOT 50 N/F LISA A. ROBBINS & K. M. MILLER DB. 2220, PG. 500
TAX LOT 51 N/F JAMES T. COLLINS JR DB. 1893, PG. 754
TAX LOT 52 N/F JASON LANTVET DB. 6628, PG. 395
TAX LOT 53 N/F ADRIANUS VAN BEVERWIJK DB. 2075, PG. 172
PROPOSED 18' LANDSCAPE BUFFER & UTILITY EASEMENT (24,390 SF, 0.56 AC)
PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 64 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 60 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 64 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 60 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 60 SF)
R–1 ZONE
SHEET D
SHEET E
1 Story Dwelling
PLANT SHALL BE TRANSPLANTED AT THE SAME DEPTH AS IT WAS IN THE NURSERY OR POT PRIOR TO PLANTING. BURLAP, WIRE BASKET AND REMOVE BURLAP FROM TOP ONE–THIRD OF ROOT BALL AS SHOWN.
PLANTING MIX:
1

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

MYSTIC DRIVE (AK ROW WIDTH PER TAX MAP)

TAX LOT 98 | TAX LOT 99 | TAX LOT 100 | TAX LOT 101 | TAX LOT 102

TAX LOT 161

TAX LOT 65.01
N/F VILLAGE SHOPPER III, LLC
DB. 6882, PG. 3765

PROP. TREE PROTECTION FENCE

ARH ZONE

PMUD ZONE

EXIST. 30' WIDE DRAINAGE EASEMENT TO SHARBELL PLAINSBORO, INC. & SHARBELL CRANBURY, INC. PER DB 7053, PG. 3204

TAX LOT 162
BLOCK 28003
N/F TAPESTRY AT MONTGOMERY HOA INC.
DB. 6716, PG. 1058

PROP. DEDICATION TO BE OBTAINED BY OWNER OF BLOCK 28005, LOT 65 (7,070 SF) (0.16 AC)

OPEN SPACE (STORMWATER MANAGEMENT BASIN)

OPEN SPACE (STORMWATER MANAGEMENT BASIN)

PROP. HOA LANDSCAPE MAINTENANCE EASEMENT
TOWNSHIP DOES NOT ACCEPT RESPONSIBILITY OF LANDSCAPE MAINTENANCE BED IN VILLAGE DRIVE RIGHT-OF-WAY THE HOA WILL MAINTAIN THE SAME

PROPOSED LOT 2 (82,525 SF)

PROPOSED 40 UNIT CONDOMINIUM BUILDING

PROP. SIGHT TRIANGLE EASEMENT (0.0001 AC., 6 SF)

(PLAY PARK NORTH)

TAX LOT 211
BLOCK 28003
N/F SHARBELL PLAINSBORO INC
DB./PG. N/A

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 211, BLOCK 28003) CONTAINING (7,661 SF) (0.18 AC)

PROP. SIGHT TRIANGLE EASEMENT (0.003 AC., 131 SF)

HARTWICK DRIVE (50' ROW WIDTH PER TAX MAP)

ARH ZONE

PMUD ZONE

10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (0.002 AC, 87 SF)

OPEN SPACE (VOLLEY PARK)

PROP. 25' SIGHT TRIANGLE (TYP)

COAH DEVELOPMENT (85 UNITS) TO BE PERMITTED BY OTHERS

TAX LOT 7
BLOCK 28004
N/F SHARBELL PLAINSBORO INC.
DB./PG. N/A

PROP. SIGN EASEMENT (0.009 AC., 399 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.016 AC., 706 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.016 AC., 682 SF)

L=295.24'
R=600.00'
D =28°11'36"
CB=N30° 24' 02"E
CD=292.27'

L=214.49'
R=630.00'
D =17°29'30"
CB=N53° 08' 45"E
CD=213.64'

L=630.00'
D =17°13'30"
CB=N53° 08' 45"E
CD=188.69'

LANE A | LANE B | LANE C | LANE D | LANE E | LANE F | LANE G | LANE H | LANE I | LANE J | LANE K | LANE L | LANE M

OPEN SPACE (CENTRAL PARK)

OPEN SPACE (TRIANGLE PARK)

OPEN SPACE (PLAY PARK SOUTH)

PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 99 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.0006 AC., 26 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 84 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 82 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 75 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.0007 AC., 31 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 88 SF)

PROP. DEDICATION TO BE OBTAINED BY OWNER OF BLOCK 28005, LOT 65 (14,139 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.0003 AC.)

10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (0.005 AC, 204 SF)

EAST HARTWICK DRIVE

PROPOSED 18' LANDSCAPE BUFFER & UTILITY EASEMENT (24,390 SF, 0.56 AC)

PMUD ZONE

R-1 ZONE

PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 60 SF)

PROP. TREE PROTECTION FENCE

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 57, BLOCK 28003) CONTAINING (1,474 SF) (0.0338 AC)

PROP. SIGHT TRIANGLE EASEMENT (0.022 AC., 1,166 SF)

PROP. 555' SIGHT TRIANGLE (TYP)

HC ZONE

REO-3 ZONE

AREA DEDICATED TO SOMERSET COUNTY FOR ROADWAY PURPOSES (1,980 SF) (0.05 AC)

GEORGETOWN FRANKLIN TURNPIKE
(A.K.A. COUNTY ROUTE 518)
(VARIABLE ROW WIDTH PER TAX MAP)

VILLAGE DRIVE (60' ROW WIDTH PER TAX MAP)

BRECKNELL WAY (50' ROW WIDTH)

TAX LOT 46
N/F CHIH-YUAN SHIH & CUIFANG XU
DB. 6127, PG. 3206

TAX LOT 47
N/F WILLIAM F. BRILL & YVONNE C.
DB./PG. N/A

TAX LOT 48
N/F ROBERT & CHERYL GESREGAN
DB. 2315, PG. 231

TAX LOT 49
N/F JOSHUA & LISA B. SILVERGLADE
DB. 6320, PG. 1184

TAX LOT 50
N/F LISA A. ROBBINS & K. M. MILLER
DB. 2220, PG. 500

TAX LOT 51
N/F JAMES T. COLLINS JR
DB. 1893, PG. 754

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARGARET J.
DB./PG. N/A

TAX LOT 55
N/F HARRY W. & BERTHA
DB./PG. N/A

TAX LOT 58
N/F MARY-CURTIS HOROWITZ
DB. 6749, PG. 3547

1 Story Dwelling

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE / SPACING	REMARKS
SHADE TREE(S)					
AROG–U	26	ACER RUBRUM 'OCTOBER GLORY'	'OCTOBER GLORY' RED MAPLE	3–3 1/2" CAL.	B+B
CCA–U	27	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	3–3 1/2" CAL.	B+B
CXO–U	18	CELTIS X OCCIDENTALIS	HACKBERRY	3–3 1/2" CAL.	B+B
PXAB–U	9	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANETREE	3–3 1/2" CAL.	B+B
QA–U	49	QUERCUS ALBA	WHITE OAK	3–3 1/2" CAL.	B+B
TA	3	TILIA AMERICANA	BASSWOOD	2 1/2–3" CAL.	B+B
TA–U	28	TILIA AMERICANA	BASSWOOD	3–3 1/2" CAL.	B+B
UAP–U	28	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	3–3 1/2" CAL.	B+B
	188				
ORNAMENTAL TREE(S)					
AC	16	AMELANCHER X GRANDIFLORA	AUTUMN BRILLIANCE	8–10'	B+B
BN	10	BETULA NIGRA	MULTI STEM RIVER BIRCH	12–14'	B+B
CC	15	CERCIS CANADENSIS	EASTERN REDBUD	2–2 1/2" CAL.	B+B
LI	14	LAGERSTROEMIA INDICA	COMMON CRAPEMYRTLE	7–8'	30 GAL.
MV	37	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	8–10'	B+B
	92				
EVERGREEN TREE(S)					
IO	33	ILEX OPACA	AMERICAN HOLLY	8–9'	B+B
JV	24	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8–9'	B+B
PAB	33	PICEA ABIES	NORWAY SPRUCE	8–9'	B+B
PS	31	PINUS STROBUS	EASTERN WHITE PINE	8–9'	B+B
	121				
EVERGREEN SHRUB(S)					
IGC	27	ILEX X MESERVEAE	'CHINA GIRL' HOLLY	24–30"	#5 CAN
IXF	15	ILEX X FOSTERI	FOSTER'S HOLLY	5–6'	B+B
JCS	10	JUNIPERUS CHINENSIS 'SPARTAN'	SPARTAN JUNIPER	3–4'	B+B
PMM	24	PINUS MUGO MUGUS	DWARF MUGO PINE	18–24"	#3 CAN
VR	21	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3–4'	B+B
	97				
DECIDUOUS SHRUB(S)					
CFL	108	CALYCANTHUS FLORIDUS	COMMON SWEET SHRUB	24–30"	#3 CAN
DGN	99	DEUTZIA GRACILIS 'NIKKO'	COMPACT DEUTZIA	18–24"	#2 CAN
HQ	138	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	24–30"	#5 CAN
LB	33	HEUCHERA AMERICANA	HEUCHERA 'GREEN SPICE'	30–36"	#5 CAN
PXOL	21	PRUNUS LAUROCERASUS	OTTO LUYKEN	30–36"	#5 CAN
SH	N/A	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	12" O.C. STAGGER SPACING	PLUG INSTALLATION
	599				
PERENNIAL(S)					
CM	117	LOBELIA CARDINALIS	CARDINAL FLOWER	1 GAL.	CONTAINER
ICR	363	CHASMANTHIUM LATIFOLIUM	RIVER OATS	1 GAL.	CONTAINER
LM	55	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 PT.	CONTAINER
	535				
ORNAMENTAL GRASS(ES)					
SNS	36	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUE STEM	15–18"	#3 CAN

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

LANDSCAPING DEFICIENCY PRICING INDEX

KEY	QUANTITY	COST PER TREE	TOTAL COST DIFFERENCE
DEFICIENT TREES	200	$300	$60,000
EVERGREEN TREES (UPSIZED FROM 6'–7' TO 8'–9')	121	$118	$14,278
DECIDUOUS TREES (UPSIZED FROM 2.5"–3" TO 3"–3.5")	185	$270	$49,950
			$64,228

NOTE: STREET TREES WITHIN SIGHT TRIANGLES WILL BE TRIMMED SO AS NOT TO OBSTRUCT SIGHT LINES. NO LEAVES OR BRANCHES BELOW 7' HEIGHT

LEGEND

UP–SIZED DECIDUOUS TREES

UP–SIZED EVERGREEN TREES

GRAPHIC SCALE
-60 0 30 60 120 240
(IN FEET)
1 INCH = 60 FT.

REV.	DATE	COMMENTS	BY
16	11/05/19	REV. PER FIELD CHANGES	AJW
15	09/05/19	REV. PER COUNTY COMMENTS	AJW
14	07/11/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BJG
12	05/07/19	REV. PER SHEAR EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JDS
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW/JDS
10	02/11/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/JDS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/JDS
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JDS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/JDS
6	09/27/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JDS
5	07/31/18	REV. PER TOWNSHIP & ERDC COMMENTS	AJW
4	06/27/18	REV. PER COUNTY & TOWNSHIP COMMENTS	AJW/JDS
3	04/19/18	REV. PER TOWNSHIP, ERD & MEAC COMMENTS	AJW/JDS
2	03/16/18	REV. PER COUNTY COMMENTS	AJW/JDS
1	01/16/18	PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN	AJW
REVISIONS:			

DYNAMIC ENGINEERING • ENGINEERING • EARTH • SURVEY • TRAFFIC

FINAL FOR SEWER DESIGN

DJD 09/25/18
CONSTRUCTION CHECK DATE

_ _
CONSTRUCTION CHECK DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC.
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 65; TAX MAP SHEET #50
EAST HARTWICK DRIVE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
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Ph: 908.879.9229 • Fax: 908.879.0222
1104 Main Street, Lake Como, New Jersey 07719
Ph: 732.974.0198 • Fax: 732.974.3857
8 Robbins Street, Suite 102, Toms River, New Jersey 08753
Ph: 732.974.0198 • Fax: 732.974.3521
1301 Central Expressway South, Suite 210, Allen, TX 75013
T: 972.534.2100
14521 Old Katy Road, Suite 290, Houston, TX 77079
Ph: 281.789.6400
101 Hoppe Expressway South, Barton Oaks Plaza One, Suite 300, Austin, TX 78746
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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: LANDSCAPE UPSIZING EXHIBIT

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043–14–015			CHECKED BY: JDS

SHEET No: 46A OF 77 | Rev. #: 16

Plotted: 11/05/19 – 1:36 PM By: bgrubin
File: P:\DEDPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\043140155XUL-dwg, ----> 46A LANDSCAPE UPSIZING EXHIBIT

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THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

SEE SHEET 46 OF 77 FOR LANDSCAPE PLAN NOTES & DETAILS

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE / SPACING	REMARKS
SHADE TREE(S)					
AROG-U	26	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3-3 1/2" CAL.	B+B
CCA-U	27	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	3-3 1/2" CAL.	B+B
CXO-U	18	CELTIS X OCCIDENTALIS	HACKBERRY	3-3 1/2" CAL.	B+B
PXAB-U	9	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANETREE	3-3 1/2" CAL.	B+B
QA-U	49	QUERCUS ALBA	WHITE OAK	3-3 1/2" CAL.	B+B
TA	3	TILIA AMERICANA	BASSWOOD	2 1/2-3" CAL.	B+B
TA-U	28	TILIA AMERICANA	BASSWOOD	3-3 1/2" CAL.	B+B
UAP-U	28	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	3-3 1/2" CAL.	B+B
	188				
ORNAMENTAL TREE(S)					
AC	16	AMELANCHIER X GRANDIFLORA	AUTUMN BRILLIANCE	8-10'	B+B
BN	10	BETULA NIGRA	MULTI STEM RIVER BIRCH	12-14'	B+B
CC	15	CERCIS CANADENSIS	EASTERN REDBUD	2-2 1/2" CAL.	B+B
LI	14	LAGERSTROEMIA INDICA	COMMON CRAPEMYRTLE	7-8'	30 GAL.
MV	37	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	8-10'	B+B
	92				
EVERGREEN TREE(S)					
IO	33	ILEX OPACA	AMERICAN HOLLY	8-9'	B+B
JV	24	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8-9'	B+B
PAB	33	PICEA ABIES	NORWAY SPRUCE	8-9'	B+B
PS	31	PINUS STROBUS	EASTERN WHITE PINE	8-9'	B+B
	121				
EVERGREEN SHRUB(S)					
IGC	27	ILEX X MESERVEAE	"CHINA GIRL" HOLLY	24-30"	#5 CAN
IXF	15	ILEX X FOSTERI	FOSTER'S HOLLY	5-6'	B+B
JCS	10	JUNIPERUS CHINENSIS 'SPARTAN'	SPARTAN JUNIPER	3-4'	B+B
PMM	24	PINUS MUGO MUGUS	DWARF MUGO PINE	18-24"	#3 CAN
VR	21	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3-4'	B+B
	97				
DECIDUOUS SHRUB(S)					
CFL	108	CALYCANTHUS FLORIDUS	COMMON SWEET SHRUB	24-30"	#3 CAN
DGN	99	DEUTZIA GRACILIS 'NIKKO'	COMPACT DEUTZIA	18-24"	#2 CAN
HQ	138	HYDRANGEA QUERIFOLIA	OAKLEAF HYDRANGEA	24-30"	#5 CAN
LB	33	HEUCHERA AMERICANA	HEUCHERA 'GREEN SPICE'	30-36"	#3 CAN
PXOL	21	PRUNUS LAUROCERASUS	OTTO LUYKEN	30-36"	#5 CAN
SH	N/A	SPORBOLUS HETEROLEPIS	PRAIRIE DROPSEED	12" O.C. STAGGER SPACING	PLUG INSTALLATION
	399				
PERENNIAL(S)					
CM	117	LOBELIA CARDINALIS	CARDINAL FLOWER	1 GAL.	CONTAINER
ICR	363	CHASMANTHIUM LATIFOLIUM	RIVER OATS	1 GAL.	CONTAINER
LM	55	LIRIOPE MUSCARI "BIG BLUE"	BIG BLUE LILYTURF	1 PT.	CONTAINER
	535				
ORNAMENTAL GRASS(ES)					
SNS	36	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUE STEM	15-18"	#3 CAN

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

TAX LOT 98

TAX LOT 99

Cap Fnd.

TAX LOT 211
BLOCK 28003
N/F SHARBELL PLAINSBORO INC
DB./PG. N/A

L=214.49'
R=187.30'
D =65°36'46"
CB=N28° 54' 56"E
CD=202.96'

L=189.40'
R=630.00'
D =17°13'30"
CB=N53° 06' 36"E
CD=188.69'

ARH ZONE

PMUD ZONE

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWSNHIP (PORTION OF TAX LOT 211, BLOCK 28003) CONTAINING (7,661 SF) (0.18 AC)

PROP. SIGHT TRIANGLE EASEMENT (0.003 AC., 131 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.018 AC., 796 SF)

PROP. 250' SIGHT TRIANGLE (TYP)

10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (0.002 AC, 87 SF)

OPEN SPACE (STORMWATER MANAGEMENT BASIN)

EXIST. 30' WIDE DRAINAGE EASEMENT TO SHARBELL PLAINSBORO, INC. & SHARBELL CRANBURY, INC. PER DB 7057, PG 3204

PROP. 20' WIDE TOWNSHIP OF MONTGOMERY "SANITARY SEWER EASEMENT"

PROP. TREE PROTECTION FENCE

PROP. 10' WIDE PSE&G UTILITY EASEMENT

NOTE: STREET TREES WITHIN SIGHT TRIANGLES WILL BE TRIMMED SO AS NOT TO OBSTRUCT SIGHT LINES. NO LEAVES OR BRANCHES BELOW 7' HEIGHT

LANE A

LANE B

LANE C

SWEETBAY STREET

JUNIPER STREET

VILLAGE DRIVE (25 MPH)

PROP. 20' WIDE NJAW WATER MAIN EASEMENT

PROP. 20' WIDE TOWNSHIP OF MONTGOMERY "SANITARY SEWER EASEMENT"

PROP. 10' WIDE PSE&G UTILITY EASEMENT

PROP. 20' WIDE TOWNSHIP OF MONTGOMERY "STORM DRAIN EASEMENT"

TAX LOT 66
BLOCK 28005
N/F MT. CAPITAL ALC
DB. 6405, PG. 1620
1,154,361 SF. 26.076 AC.

PROPOSED LOT 2 (82,525 SF)

PROPOSED 40 UNIT CONDOMINIUM BUILDING (23,077 SF)

PROP. HOA LANDSCAPE MAINTENANCE EASEMENT (TOWNSHIP DOES NOT ACCEPT MAINTENANCE RESPONSIBILITY)

SLOPE PLANTINGS TO BE 100% SPORBOLOS HETEROLEPIS (TYP)

PLANTED SLOPES TO BE SEEDED MEADOW (TYP)

OPEN SPACE (CENTRAL PARK)

SHEET A
SHEET C

SHEET A
SHEET B

SHEET INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
(IN FEET)
1 INCH = 30 FT.

REV.	DATE	COMMENTS	BY
16	11/01/19	REV. PER REAB CHANGES	AJW
15	09/03/19	REV. PER COUNTY COMMENTS	AJW
14	07/11/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BSC
12	05/01/19	REV. PER SHEAS EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JDS
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW
10	02/27/19	REV. PER RESOLUTION AND TOWNSHIP COMMENTS	AJW/JDS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/JDS
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JDS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/JDS
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JDS
5	07/17/18	REV. PER TOWNSHIP & BRSC COMMENTS	AJW
4	05/23/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JDS
3	04/19/18	REV. PER TOWNSHIP, BCA & BRSC COMMENTS	AJW/JDS
2	03/19/18	REV. PER COUNTY COMMENTS	AJW/JDS
1	02/20/18	REV. PER COUNTY COMMENTS	AJW/JDS
REV.	DATE	COMMENTS	BY

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18
CONSTRUCTION CHECK DATE

_ _
CONSTRUCTION CHECK DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC.**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 66; TAX MAP SHEET #55
GEORGETOWN ROAD, FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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14521 Old Katy Road, Suite 290, Houston, TX 77079
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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **LANDSCAPE PLAN A**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: **47** OF 77 | Rev. #: 16

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Plotted: 11/06/19 – 1:37 PM By: bgaudin
File: P:\DEGPC PROJECTS\0043 Shorbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\0431401SSVL.dwg, ----> 47 LANDSCAPE PLAN A

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

SEE SHEET 46 OF 77 FOR LANDSCAPE PLAN NOTES & DETAILS

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE / SPACING	REMARKS
SHADE TREE(S)					
AROG–U	26	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3–3 1/2" CAL.	B+B
CCA–U	27	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	3–3 1/2" CAL.	B+B
CXO–U	18	CELTIS X OCCIDENTALIS	HACKBERRY	3–3 1/2" CAL.	B+B
PXAB–U	9	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANETREE	3–3 1/2" CAL.	B+B
QA–U	49	QUERCUS ALBA	WHITE OAK	3–3 1/2" CAL.	B+B
TA	3	TILIA AMERICANA	BASSWOOD	2 1/2–3" CAL.	B+B
TA–U	28	TILIA AMERICANA	BASSWOOD	3–3 1/2" CAL.	B+B
UAP–U	28	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	3–3 1/2" CAL.	B+B
	188				
ORNAMENTAL TREE(S)					
AC	16	AMELANCHIER X GRANDIFLORA	AUTUMN BRILLIANCE	8–10'	B+B
BN	10	BETULA NIGRA	MULTI STEM RIVER BIRCH	12–14'	B+B
CC	15	CERCIS CANADENSIS	EASTERN REDBUD	2–2 1/2" CAL.	B+B
LI	14	LAGERSTROEMIA INDICA	COMMON CRAPEMYRTLE	7–8'	30 GAL.
MV	37	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	8–10'	B+B
	92				
EVERGREEN TREE(S)					
IO	33	ILEX OPACA	AMERICAN HOLLY	8–9'	B+B
JV	24	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8–9'	B+B
PAB	33	PICEA ABIES	NORWAY SPRUCE	8–9'	B+B
PS	31	PINUS STROBUS	EASTERN WHITE PINE	8–9'	B+B
	121				
EVERGREEN SHRUB(S)					
IGC	27	ILEX X MESERVEAE	'CHINA GIRL' HOLLY	24–30"	#5 CAN
IXF	15	ILEX X FOSTERI	FOSTER'S HOLLY	5–6'	B+B
JCS	10	JUNIPERUS CHINENSIS 'SPARTAN'	SPARTAN JUNIPER	3–4'	B+B
PMM	24	PINUS MUGO MUGUS	DWARF MUGO PINE	18–24"	#3 CAN
VR	21	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3–4'	B+B
	97				
DECIDUOUS SHRUB(S)					
CFL	108	CALYCANTHUS FLORIDUS	COMMON SWEET SHRUB	24–30"	#3 CAN
DGN	99	DEUTZIA GRACILIS 'NIKKO'	COMPACT DEUTZIA	18–24"	#2 CAN
HQ	138	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	24–30"	#5 CAN
LB	33	HEUCHERA AMERICANA	HEUCHERA 'GREEN SPICE'	30–36"	#5 CAN
PXOL	21	PRUNUS LAUROCERASUS	OTTO LUYKEN	30–36"	#5 CAN
SH	N/A	SPORBOLOS HETEROLEPIS	PRAIRIE DROPSEED	12" O.C. STAGGER SPACING	PLUG INSTALLATION
	599				
PERENNIAL(S)					
CM	117	LOBELIA CARDINALIS	CARDINAL FLOWER	1 GAL.	CONTAINER
ICR	363	CHASMANTHIUM LATIFOLIUM	RIVER OATS	1 GAL.	CONTAINER
LM	55	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 PT.	CONTAINER
	535				
ORNAMENTAL GRASS(ES)					
SNS	36	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUE STEM	15–18"	#3 CAN

NOTE: ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

NO.	DATE	REVISIONS
16	11/01/19	REV. PER FIELD CHANGES
15	09/05/19	REV. PER COUNTY COMMENTS
14	07/11/19	REV. PER COUNTY COMMENTS
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS
12	05/07/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS
11	03/27/19	REV. PER TOWNSHIP COMMENTS
10	02/27/19	REV. PER PSE&G, TOWNSHIP AND COUNTY COMMENTS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE
8	11/21/18	REV. PER COUNTY COMMENTS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS
5	07/17/18	REV. PER TOWNSHIP & DRBC COMMENTS
4	06/11/18	REV. PER RESOLUTION COMPLIANCE
3	04/19/18	REV. PER TOWNSHIP, RBA & DRBC COMMENTS
2	03/12/18	REV. PER COUNTY COMMENTS
REV.	DATE	COMMENTS

PROP. TREE PROTECTION FENCE

ARH ZONE

PMUD ZONE

SEEDED MEADOW MIX ALONG BIKE PATH (TYP)

OPEN SPACE (STORMWATER MANAGEMENT BASIN)

PROP. DEDICATION TO BE OBTAINED BY OWNER OF BLOCK 28005, LOT 65 (7,070 SF) (0.16 AC.)

PROPOSED LOT 2 (82,525 SF)

PROPOSED 40 UNIT CONDOMINIUM BUILDING (23,077 SF)

PROP. HOA LANDSCAPE MAINTENANCE EASEMENT (TOWNSHIP DOES NOT ACCEPT MAINTENANCE RESPONSIBILITY 3 DGN BEYOND BED IN 5 PXOL DRIVE, NAVY THE 5 PXOL GAME)

PROP. SEED/SOD AREA

PROP. FIBAR/ADA COMPLIANT SAFETY MULCH

PROP. 250' SIGHT TRIANGLE (TYP)

VILLAGE DRIVE (25 MPH)

SWEETBAY STREET

JUNIPER STREET

LANE C

LANE D

LANE E

LANE F

NOTE: STREET TREES WITHIN SIGHT TRIANGLES WILL BE TRIMMED SO AS NOT TO OBSTRUCT SIGHT LINES. NO LEAVES OR BRANCHES BELOW 7' HEIGHT

PROP. SIGHT TRIANGLE EASEMENT (0.0001 AC., 6 SF)

10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (0.005 AC, 204 SF)

PROP. SIGHT TRIANGLE EASE (0.0007 AC., 31 SF)

PROP. SIGHT TRIANGLE EAS (0.002 AC., 88 SF)

OPEN SPACE (CENTRAL PARK) 8 UPA–U

OPEN SPACE (EAST ALLEY PARK)

SLOPE PLANTINGS TO BE 100% SPORBOLOS HETEROLEPIS (TYP)

PLANTED SLOPES TO BE SEEDED MEADOW (TYP)

TAX LOT 66 BLOCK 28005 N/F AT CAPITAL RES. DEED BOOK 6482 PAGE 3622 35,861 SF 26.076 AC.

TAX LOT 161

PROP. 20' WIDE TOWNSHIP OF MONTGOMERY SANITARY SEWER EASEMENT

PROP. 20' WIDE NJAW WATER MAIN EASEMENT

PROP. 10' WIDE PSE&G UTILITY EASEMENT

PROP. 10' WIDE PSE&G UTILITY EASEMENT

PROP. 10' WIDE PSE&G UTILITY EASEMENT

PROP. 10' WIDE PSE&G UTILITY EASEMENT

PROP. 20' WIDE NJAW WATER MAIN EASEMENT

PROP. 20' WIDE TOWNSHIP OF MONTGOMERY SANITARY SEWER EASEMENT

PROP. 20' WIDE TOWNSHIP OF MONTGOMERY SANITARY SEWER EASEMENT

PROP. 20' WIDE TOWNSHIP OF MONTGOMERY SANITARY SEWER EASEMENT

PROP. 20' WIDE NJAW WATER MAIN EASEMENT

PROP. 20' WIDE NJAW WATER MAIN EASEMENT

PROP. 20' WIDE NJAW WATER MAIN

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

SEE SHEET 46 OF 77 FOR LANDSCAPE PLAN NOTES & DETAILS

SHEET A
SHEET C

PMUD ZONE

10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (0.002 AC, 87 SF)

D =17°13'30"
CB=N53° 06' 34"E
CD=188.69'

PROP. 250' SIGHT TRIANGLE (TYP)

PROP. SIGHT TRIANGLE EASEMENT (0.016 AC., 706 SF)

PROP. SIGN EASEMENT (0.009 AC., 399 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.016 AC., 682 SF)

L=295.24'
R=600.00'
D =28°11'36"
CB=N30° 24' 02"E
CD=292.27'

NOTE: STREET TREES WITHIN SIGHT TRIANGLES WILL BE TRIMMED SO AS NOT TO OBSTRUCT SIGHT LINES. NO LEAVES OR BRANCHES BELOW 7' HEIGHT

OPEN SPACE

TAX LOT 66
BLOCK 28006
N/F MTS CAPITAL LLC
DB. 6320, PG. 1232
1,198,901 SF, 26.075 AC.

PLANTED SLOPES TO BE SEEDED MEADOW (TYP)

SLOPE PLANTINGS TO BE 100% SPORBOLOS HETEROLEPIS (TYP)

LANE A

LANE C

LANE H

LANE I

LANE J

LANE K

EAST HARTWICK DRIVE

PROP. 20' WIDE NJAW WATER MAIN EASEMENT

PROP. 10' WIDE PSE&G UTILITY EASEMENT

PROP. 20' WIDE TOWNSHIP OF MONTGOMERY SANITARY SEWER EASEMENT

PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 99 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 84 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.0006 AC., 26 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 68 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 64 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 60 SF)

PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 64 SF)

PROP. 'NO MOW' LOW FESCUE SEEDING (TYP)

PROPOSED 18' LANDSCAPE BUFFER & UTILITY EASEMENT (24,390 SF, 0.56 AC)

VILLAGE DRIVE
(60' ROW WIDTH PER TAX MAP)

GEORGETOWN FRAN
(A.K.A. COUNTY RO
(VARIABLE ROW WIDTH

R-1 ZONE

TAX LOT 47
N/F WILLIAM F. BRILL & YVONNE C.
DB./PG. N/A

TAX LOT 48
N/F ROBERT & CHERYL GESREGAN
DB. 2315, PG. 231

TAX LOT 49
N/F JOSHUA & LISA B. SILVERGLADE
DB. 6320, PG. 1184

TAX LOT 50
N/F LISA A. ROBBINS & K. M. MILLER
DB. 2220, PG. 500

TAX LOT 51
N/F JAMES T. COLLINS JR
DB. 1893, PG. 754

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARG
DB./PG. N/A

1 Story Dwelling
2 Story Dwelling

SHEET C
SHEET D

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE/ SPACING	REMARKS
SHADE TREE(S)					
AROG-U	26	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3-3 1/2" CAL.	B+B
CCA-U	27	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	3-3 1/2" CAL.	B+B
CXO-U	18	CELTIS X OCCIDENTALIS	HACKBERRY	3-3 1/2" CAL.	B+B
PXAB-U	9	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANETREE	3-3 1/2" CAL.	B+B
QA-U	49	QUERCUS ALBA	WHITE OAK	3-3 1/2" CAL.	B+B
TA	3	TILIA AMERICANA	BASSWOOD	2 1/2-3" CAL.	B+B
TA-U	28	TILIA AMERICANA	BASSWOOD	3-3 1/2" CAL.	B+B
UAP-U	28	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	3-3 1/2" CAL.	B+B
	188				
ORNAMENTAL TREE(S)					
AC	16	AMELANCHER X GRANDIFLORA	AUTUMN BRILLIANCE	8-10'	B+B
BN	10	BETULA NIGRA	MULTI STEM RIVER BIRCH	12-14'	B+B
CC	15	CERCIS CANADENSIS	EASTERN REDBUD	2-2 1/2" CAL.	B+B
LI	14	LAGERSTROEMIA INDICA	COMMON CRAPEMYRTLE	7-8'	30 GAL.
MV	37	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	8-10'	B+B
	92				
EVERGREEN TREE(S)					
IO	33	ILEX OPACA	AMERICAN HOLLY	8-9'	B+B
JV	24	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8-9'	B+B
PAB	33	PICEA ABIES	NORWAY SPRUCE	8-9'	B+B
PS	31	PINUS STROBUS	EASTERN WHITE PINE	8-9'	B+B
	121				
EVERGREEN SHRUB(S)					
ICC	27	ILEX X MESERVEAE	'CHINA GIRL' HOLLY	24-30"	#5 CAN
IXF	15	ILEX X FOSTERI	FOSTER'S HOLLY	5-6'	B+B
JCS	10	JUNIPERUS CHINENSIS 'SPARTAN'	SPARTAN JUNIPER	3-4'	B+B
PMM	24	PINUS MUGO MUGUS	DWARF MUGO PINE	18-24"	#3 CAN
VR	21	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3-4'	B+B
	97				
DECIDUOUS SHRUB(S)					
CFL	108	CALYCANTHUS FLORIDUS	COMMON SWEET SHRUB	24-30"	#3 CAN
DGN	99	DEUTZIA GRACILIS 'NIKKO'	COMPACT DEUTZIA	18-24"	#2 CAN
HQ	138	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	24-30"	#5 CAN
LB	33	HEUCHERA AMERICANA	HEUCHERA 'GREEN SPICE'	30-36"	#5 CAN
PVOL	21	PRUNUS LAUROCERASUS	OTTO LUYKEN	30-36"	#5 CAN
SH	N/A	SPORBOLOS HETEROLEPIS	PRAIRIE DROPSEED	12" O.C. STAGGER SPACING	PLUG INSTALLATION
	399				
PERENNIAL(S)					
CM	117	LOBELIA CARDINALIS	CARDINAL FLOWER	1 GAL.	CONTAINER
ICR	363	CHASMANTHIUM LATIFOLIUM	RIVER OATS	1 GAL.	CONTAINER
LM	55	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 PT.	CONTAINER
	535				
ORNAMENTAL GRASS(ES)					
SNS	36	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUE STEM	15-18"	#3 CAN

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL OCTATE.

SHEET INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
(IN FEET)
1 INCH = 30 FT.

REV.	DATE	COMMENTS
16	11/01/19	REV. PER FIELD CHANGES
15	09/03/19	REV. PER COUNTY COMMENTS
14	07/11/19	REV. PER COUNTY COMMENTS
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS
12	05/01/19	REV. PER SWEAG EASEMENT CHANGES AND COUNTY COMMENTS
11	03/27/19	REV. PER TOWNSHIP COMMENTS
10	02/11/19	REV. PER RESOLUTION COMPLIANCE AND TOWNSHIP COMMENTS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE
8	11/21/18	REV. PER COUNTY COMMENTS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS
5	07/17/18	REV. PER TOWNSHIP & SWAC COMMENTS
4	06/19/18	REV. PER RESOLUTION COMPLIANCE
3	04/19/18	REV. PER TOWNSHIP, RSD & SWAC COMMENTS
2	03/19/18	REV. PER COUNTY COMMENTS
1	02/20/18	REV. PER COUNTY COMMENTS
		PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN

COMMENTS: FINAL FOR SEWER DESIGN

CONSTRUCTION CHECK — DATE

DJD 09/25/18
CONSTRUCTION CHECK DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC.
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 65; TAX MAP SHEET #50
GEORGETOWN ROAD & ROUTE 206 (OFFICE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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www.dynamicec.com

JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: LANDSCAPE PLAN C

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 49 OF 77
Rev. #: 16

Plotted: 11/05/19 – 1:38 PM By: bgrubin
File: P:\DEDPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\0431401SSOL.dwg, ----> 49 LANDSCAPE PLAN C

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THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

SEE SHEET 46 OF 77 FOR LANDSCAPE PLAN NOTES & DETAILS

SHEET B
SHEET D

LANE C
LANE D
LANE F
LANE G
LANE K
LANE L
LANE M
EAST HARTWICK DRIVE (25 MPH)
TAMWORTH DRIVE (25 MPH)
BRECKNELL WAY (25 MPH)
GEORGETOWN FRANKLIN TURNPIKE (A.K.A. COUNTY ROUTE 518) (VARIABLE ROW WIDTH PER TAX MAP)

PMUD ZONE
R-1 ZONE
HC ZONE
REO-3 ZONE

SLOPE PLANTINGS TO BE 100% SPORBOLOS HETEROLEPIS (TYP)
PLANTED SLOPES TO BE SEEDED MEADOW (TYP)
PROP. 'NO MOW' LOW FESCUE SEEDING (TYP)
PROP. 20' WIDE N.J.N.W. WATER MAIN EASEMENT
PROP. 20' WIDE TOWNSHIP OF MONTGOMERY SANITARY SEWER EASEMENT
PROP. 22' WIDE TOWNSHIP OF MONTGOMERY SANITARY SEWER EASEMENT
PROP. 10' WIDE PSE&G UTILITY EASEMENT
PROPOSED 18' LANDSCAPE BUFFER & UTILITY EASEMENT (24,390 SF, 0.56 AC)
PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 57, BLOCK 28003) CONTAINING (1,474 SF) (0.0338 AC)
PROP. DEDICATION TO OWNER OF BLOCK 28003 (14,330 SF) (0.33 AC)
AREA DEDICATED TO SOMERSET COUNTY FOR ROADWAY PURPOSES (1,980 SF) (0.05 AC)
PROP. TREE PROTECTION FENCE
PROP. SIGHT TRIANGLE EASEMENT (0.0006 AC., 26 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 68 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 84 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 75 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.002 AC., 82 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 74 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.0003 AC., 13 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 64 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 60 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 64 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 60 SF)
PROP. SIGHT TRIANGLE EASEMENT (0.001 AC., 64 SF)
PROP. 250' SIGHT TRIANGLE (TYP)
PROP. 555' SIGHT TRIANGLE (TYP)
OPEN SPACE (TRIANGLE PARK)
OPEN SPACE (PLAY PARK SOUTH)
P.O.B.
Mon. Fnd.
I.P. Fnd.
Rebar Fnd.
1,350.00' (DR1)
1,722.96' (DR1) & N87° 39' 16"W
300.00' (DR1)
N16° 18' 14"E
S16° 18' 14"W
330.00' (DR1)
N73° 41' 46"W 60.00' (DR1)
Centerline of Two (2) Two Foot Wide PSE&G Easements per DB. 922, PG. 355
60' ROW Subject to Harriet Ellen Rights as per DB. 922, PG. 355
25' Wide Temporary Construction Easement Per DB. 2140, PG. 62
Water Line Easement Per DB. 2140, PG. 62
PSE&G CO. Easement per DB. 922, PG. 355
1 Story Dwelling
Shed

TAX LOT 66
BLOCK 28005
N/F M CAPITAL, LLC
DB. 6492, PG. 3822
135,861 SF, 3.078 AC.

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARGARET J.
DB./PG. N/A

TAX LOT 55
N/F HARRY W. & BERTHA ZOLL
DB./PG. N/A

TAX LOT 56
N/F ODILIA & MIGUEL A. SANTIZO
DB. 2180, PG. 438

TAX LOT 57
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

TAX LOT 58
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE / SPACING	REMARKS
SHADE TREE(S)					
AROG-U	26	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3-3 1/2" CAL.	B+B
CCA-U	27	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	3-3 1/2" CAL.	B+B
CXO-U	18	CELTIS X OCCIDENTALIS	HACKBERRY	3-3 1/2" CAL.	B+B
PXAB-U	9	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANETREE	3-3 1/2" CAL.	B+B
QA-U	49	QUERCUS ALBA	WHITE OAK	3-3 1/2" CAL.	B+B
TA	3	TILIA AMERICANA	BASSWOOD	2 1/2-3" CAL.	B+B
TA-U	28	TILIA AMERICANA	BASSWOOD	3-3 1/2" CAL.	B+B
UAP-U	28	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	3-3 1/2" CAL.	B+B
	188				
ORNAMENTAL TREE(S)					
AC	16	AMELANCHIER X GRANDIFLORA	AUTUMN BRILLIANCE	8-10'	B+B
BN	10	BETULA NIGRA	MULTI STEM RIVER BIRCH	12-14'	B+B
CC	15	CERCIS CANADENSIS	EASTERN REDBUD	2-2 1/2" CAL.	B+B
LI	14	LAGERSTROEMIA INDICA	COMMON CRAPEMYRTLE	7-8'	30 GAL.
MV	37	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	8-10'	B+B
	92				
EVERGREEN TREE(S)					
IO	33	ILEX OPACA	AMERICAN HOLLY	8-9'	B+B
JV	24	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8-9'	B+B
PAB	33	PICEA ABIES	NORWAY SPRUCE	8-9'	B+B
PS	31	PINUS STROBUS	EASTERN WHITE PINE	8-9'	B+B
	121				
EVERGREEN SHRUB(S)					
IOC	27	ILEX X MESERVEAE	'CHINA GIRL' HOLLY	24-30"	#5 CAN
IXF	15	ILEX X FOSTERI	FOSTER'S HOLLY	5-6'	B+B
JCS	10	JUNIPERUS CHINENSIS 'SPARTAN'	SPARTAN JUNIPER	3-4'	B+B
PMM	24	PINUS MUGO MUGUS	DWARF MUGO PINE	18-24"	#3 CAN
VR	21	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3-4'	B+B
	97				
DECIDUOUS SHRUB(S)					
CFL	108	CALYCANTHUS FLORIDUS	COMMON SWEET SHRUB	24-30"	#3 CAN
DGN	99	DEUTZIA GRACILIS 'NIKKO'	COMPACT DEUTZIA	18-24"	#2 CAN
HQ	138	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	24-30"	#5 CAN
LB	33	HEUCHERA AMERICANA	HEUCHERA 'GREEN SPICE'	30-36"	#5 CAN
PXOL	21	PRUNUS LAUROCERASUS	OTTO LUYKEN	30-36"	#5 CAN
SH	N/A	SPORBOLOS HETEROLEPIS	PRAIRIE DROPSEED	12" O.C. STAGGER SPACING	PLUG INSTALLATION
	599				
PERENNIAL(S)					
CM	117	LOBELIA CARDINALIS	CARDINAL FLOWER	1 GAL.	CONTAINER
ICR	363	CHASMANTHIUM LATIFOLIUM	RIVER OATS	1 GAL.	CONTAINER
LM	55	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 PT.	CONTAINER
	535				
ORNAMENTAL GRASS(ES)					
SNS	36	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUE STEM	15-18"	#3 CAN

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

SHEET INDEX MAP
NOT TO SCALE
A | B | C | D

GRAPHIC SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

N

REV.	DATE	COMMENTS
16	11/01/19	REV. PER FIELD CHANGES
15	09/03/19	REV. PER COUNTY COMMENTS
14	07/11/19	REV. PER COUNTY COMMENTS
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS
12	05/01/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS
11	03/27/19	REV. PER TOWNSHIP COMMENTS
10	02/27/19	REV. PER TOWNSHIP AND COUNTY COMMENTS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE
8	11/21/18	REV. PER COUNTY COMMENTS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS
5	07/17/18	REV. PER TOWNSHIP & BRDC COMMENTS
4	06/19/18	REV. PER RESOLUTION COMPLIANCE
3	04/19/18	REV. PER TOWNSHIP, BCD & BRDC COMMENTS
2	03/16/18	REV. PER COUNTY COMMENTS
1	02/16/18	REV. PER COUNTY COMMENTS
REV.	DATE	COMMENTS

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18
CONSTRUCTION CHECK DATE

_ _
CONSTRUCTION CHECK DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 66; TAX MAP SHEET #50
GEORGETOWN FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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T: 972.534.2100
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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: LANDSCAPE PLAN D

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 50 OF 77
Rev. #: 16

Plotted: 11/06/19 - 1:35 PM, By: hgrubin
File: P:\DESPC PROJECTS\0043 Shartbell Development\14-015 Research Rd & Georgetown - Franklin TPKE\dwg\Site Plans\043140150LP.dwg, ---> 50 LANDSCAPE PLAN D

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THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

THIS PLAN IS FOR GRAPHICAL REPRESENTATION PURPOSES ONLY. NOT FOR CONSTRUCTION

SEE SHEET 3 OF 77 FOR LIGHTING NOTES
SEE SHEET 66 OF 77 FOR LIGHTING DETAILS

MYSTIC DRIVE (AK ROW WIDTH PER TAX MAP)

TAX LOT 98 | TAX LOT 99 | TAX LOT 100 | TAX LOT 101 | TAX LOT 102

TAX LOT 161

TAX LOT 65.01
N/F VILLAGE SHOPPER III, LLC
DB. 6882, PG. 3765

PROP. DEDICATION TO BE OBTAINED BY OWNER OF BLOCK 28005, LOT 65 (7,070 SF) (0.16 AC)

TAX LOT 162
BLOCK 28003
N/F TAPESTRY AT MONTGOMERY HOA INC.
DB. 6716, PG. 1058

ARH ZONE | PMUD ZONE

PROPOSED LOT 2 (82,525 SF)
PROPOSED 40 UNIT CONDOMINIUM BUILDING (23,077 SF)

VILLAGE DRIVE (25 MPH)

TAX LOT 211
BLOCK 28003
N/F SHARBELL PLAINSBORO INC
DB./PG. N/A

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 211, BLOCK 28003) CONTAINING (7,661 SF) (0.18 AC)

HARTWICK DRIVE (50' ROW WIDTH PER TAX MAP)

L=214.49'
R=630.00'
D =17°13'30"
CB=N53° 06' 49"E
CD=188.65'

ARH ZONE | PMUD ZONE

SHEET A
SHEET C

COAH DEVELOPMENT (88 UNITS) TO BE PERMITTED BY OTHERS

TAX LOT 7
BLOCK 28004
N/F SHARBELL PLAINSBORO INC.
DB./PG. N/A

L=295.24'
R=600.00'
D =28°11'36"
CB=N30° 24' 02"E
CD=292.27'

TAX LOT 66
BLOCK 28005
N/F KT CAPITAL, LLC
DB. 6402, PG. 1822
135,861 SF, 26.076 AC.

TAX LOT 66
BLOCK 28005
N/F KT CAPITAL, LLC
DB. 6402, PG. 1822
135,001 SF, 26.076 AC.

LANE A | LANE B | LANE C | LANE D | LANE E | LANE F | LANE G | LANE H | LANE I | LANE J | LANE K | LANE L | LANE M

SHEET A
SHEET B

SHEET B
SHEET D

PMUD ZONE

EAST HARTWICK DRIVE (25 MPH)

PROP. DEDICATION TO OWNER (14,439 SF)

ADAMWORTH DRIVE (50' ROW WIDTH PER TAX MAP)

TAX LOT 49
N/F B. SILVERGLADE
PG. 1184

TAX LOT 50
N/F LISA A. ROBBINS & K. M. MILLER
DB. 2220, PG. 500

TAX LOT 51
N/F JAMES T. COLLINS JR
DB. 1893, PG. 754

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVERWIJK
DB. 2075, PG. 172

SHEET C
SHEET D

R-1 ZONE

TAX LOT 54
N/F COSMO DI FALCO & MARGARET J.
DB./PG. N/A

TAX LOT 55
N/F HARRY W. & BERTHA ZOLL
DB./PG. N/A

TAX LOT 56
N/F ODILIA & MIGUEL A. SANTIZO
DB. 2180, PG. 438

TAX LOT 57
N/F MARY-CURTIS NORDWITZ
DB. 6749, PG. 3547

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 57, BLOCK 28003) CONTAINING (1,474 SF) (0.0338 AC)

1 Story Dwelling | 2 Story Dwelling

GEORGETOWN FRANKLIN TURNPIKE
(A.K.A. COUNTY ROUTE 518)
(VARIABLE ROW WIDTH PER TAX MAP)

AREA DEDICATED TO SOMERSET COUNTY FOR ROADWAY PURPOSES (1,980 SF) (0.05 AC)

HC ZONE | REO-3 ZONE

CALCULATION SUMMARY

LABEL	SQUARE FEET	AVG	MAX	MIN	AVG/MIN	MAX/MIN	DESCRIPTION
TRACT BOUNDARY EAST	N/A	0.15	2.6	0	N.A.	N.A.	LIGHT LEVELS ALONG EAST PROPERTY LINE ABUTTING BLOCK 28005, LOTS 68 & 69
TRACT BOUNDARY NORTH	N/A	0	0.1	0	N.A.	N.A.	LIGHT LEVELS ALONG NORTH PROPERTY LINE ABUTTING BLOCK 28003, LOT 162
TRACT BOUNDARY SOUTH	N/A	0	0	0	N.A.	N.A.	LIGHT LEVELS ALONG SOUTH PROPERTY LINE ABUTTING R-1 ZONE
CONDO PARKING LOT	16,221	1.48	6.5	0.6	2.47	10.83	LIGHT LEVELS WITHIN CONDO PARKING AREA
INT HARTWICK & LANE D	1,420	2.19	4	1.2	1.83	3.33	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE D
INT HARTWICK & LANE H	1,883	2.25	3.7	0.8	2.81	4.63	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE H
INT HARTWICK & LANE K & JUNIPER	2,968	2.03	5.9	0.4	5.08	14.75	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK, LANE K & JUNIPER STREET
INT HARTWICK & LANE L & G	3,216	1.98	4	0.9	2.20	4.44	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE L
INT HARTWICK & LANES C & J	2,930	2.26	7.1	0.1	22.60	71.00	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK, LANE C & LANE J
INT HARTWICK & TAMWORTH	2,544	3.13	8.1	0.4	7.83	20.25	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & TAMWORTH DRIVE
INT HARTWICK & SWEETBAY	1,516	2.11	8.4	0.3	7.03	28.00	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & SWEETBAY STREET
INT VILLAGE & LANE A	1,692	3.03	5.3	1.4	2.16	3.79	LIGHT LEVEL WITHIN THE INTERSECTION OF VILLAGE DRIVE & LANE A
INT VILLAGE & TAMWORTH	2,363	3.81	9.1	1.3	2.93	7.00	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & TAMWORTH DRIVE
INT VILLAGE & SWEETBAY	2,530	3.15	10.6	0.4	7.88	26.50	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & SWEETBAY STREET
INT VILLAGE & JUNIPER	2,515	2.85	10.2	0.6	4.75	17.00	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & JUNIPER STREET
INT RESEARCH & HARTWICK	3,804	2.65	11.4	0.6	4.42	19.00	LIGHT LEVEL WITHIN THE INTERSECTION OF RESEARCH ROAD & EAST HARTWICK DRIVE
INT TAMWORTH & LANE E	1,826	2.4	6.3	0.5	4.80	12.60	LIGHT LEVELS WITHIN INTERSECTION OF TAMWORTH DRIVE & LANE E
LOT CONDO	84,459	1.20	11.7	0	N.A.	N.A.	LIGHT LEVELS WITHIN CONDO LOT
LOT TOWNHOMES	105,817	0.28	12.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN TOWNHOME PROPERTY LINE
ST HARTWICK	39,815	0.89	8.4	0	N.A.	N.A.	LIGHT LEVELS WITHIN EAST HARTWICK DRIVE
ST VILLAGE RD	49,808	0.7	10.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN VILLAGE DRIVE
ST TAMWORTH	15,309	1.02	8.1	0	N.A.	N.A.	LIGHT LEVELS WITH TAMWORTH DRIVE
ST SWEETBAY	7,900	0.46	6.8	0	N.A.	N.A.	LIGHT LEVELS WITHIN SWEETBAY STREET
ST JUNIPER	7,905	0.81	6.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN JUNIPER STREET
WALK ALLEY PARK EAST	1,667	0.36	3.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN EAST ALLEY PARK SIDEWALK
WALK ALLEY PARK WEST	2,186	0.66	5.5	0	N.A.	N.A.	LIGHT LEVELS WITHIN WEST ALLEY PARK SIDEWALK
WALK BIKE PATH	3,754	0.34	2.7	0	N.A.	N.A.	LIGHT LEVELS WITHIN BIKE PATH
WALK C EAST	1,480	1.51	12.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON EAST SIDE OF SWEETBAY STREET
WALK C WEST	1,480	0.01	0.1	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON WEST SIDE OF SWEETBAY STREET
WALK CENTRAL VILLAGE	1,555	0.97	5.2	0.1	9.70	52.00	LIGHT LEVELS WITHIN CENTRAL PARK SIDEWALK ALONG VILLAGE DRIVE
WALK CENTRAL MIDDLE TIER NORTH	808	2.67	7.5	0.2	13.35	37.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF MIDDLE TIER SIDEWALK
WALK CENTRAL MIDDLE TIER SOUTH	820	1.05	2.4	0.1	10.50	24.00	LIGHT LEVELS WITHIN CENTRAL PARK SOUTH SIDE OF MIDDLE TIER SIDEWALK
WALK CENTRAL NORTH TIER NORTH	681	1.74	5.3	0.2	8.70	26.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF NORTH SIDEWALK
WALK CENTRAL NORTH TIER SOUTH	613	1.4	3.7	0.1	14.00	37.00	LIGHT LEVELS WITHIN CENTRAL PARK SOUTH SIDE OF NORTH SIDEWALK
WALK CENTRAL SOUTH TIER NORTH	808	2.56	5.1	0.2	12.80	25.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF SOUTH TIER SIDEWALK
WALK CONDO	2,554	2.86	8.1	0.5	5.72	16.20	LIGHT LEVELS WITHIN CONDOMINIUM SIDEWALK ALONG PARKING
WALK JUNIPER EAST	1,480	0.03	0.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON EAST SIDE OF JUNIPER STREET
WALK JUNIPER WEST	1,480	1.06	8.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON WEST SIDE OF JUNIPER STREET
WALK HARTWICK NORTH	5,560	0.62	2.1	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON NORTH SIDE OF EAST HARTWICK DRIVE
WALK HARTWICK SOUTH	5,833	0.57	5.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON SOUTH SIDE OF EAST HARTWICK DRIVE
WALK VILLAGE NORTH	6,116	0.94	6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON NORTH SIDE OF VILLAGE DRIVE
WALK VILLAGE SOUTH	5,623	1.22	10.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON SOUTH SIDE OF VILLAGE DRIVE
WALK VILLAGE TO TAMWORTH	689	1.08	5.2	0.1	10.80	52.00	LIGHT LEVELS WITHIN SIDEWALK BETWEEN VILLAGE DRIVE & LANE B
WALK PLAY PARK	471	0.55	1.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN THE WEST SIDE PLAY PARK SIDEWALK
WALK TAMWORTH WEST	1,748	0.36	3.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ALONG WEST SIDE OF TAMWORTH DRIVE
WALK TRIANGLE PARK	1,110	0.57	2.6	0	N.A.	N.A.	LIGHT LEVELS WITHINSIDEWALK TO TRIANGLE PARK

LUMINAIRE SCHEDULE

SYMBOL	QUANTITY	LABEL	WATTAGE	MOUNTING HEIGHT	ARRANGEMENT	LIGHT LOSS FACTOR	MANUFACTURER	DESCRIPTION	IES FILE
○	20	A-150H-3-10	150	13'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-15S3H.ies
○	9	A-150H-5-10	150	13'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 5 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-15S5H.ies
○	21	SH-150H-3-10	150	13'	SINGLE	0.8	HADCO LIGHTING	SHIELDED HIGH PRESSUE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-10S3HM.IES
○	4	A-150H-3-12	150	15'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSUE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-15S3H.ies
○	1	A-150H-5-12	150	15'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSUE SODIUM, TYPE 5 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-15S5H.ies
○	5	SH-150H-3-12	150	15'	SINGLE	0.8	HADCO LIGHTING	SHIELDED HIGH PRESSUE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-10S3HM.IES
◎	35	B-150H-5	150	3'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM TYPE 5 PATTERN HADCO LIGHTING CLASSIC SERIES BOLLARD LIGHT	EL20-10S5V-02.ies

ISO CURVES ARE MANTAINED AND SHOWN AT 1.0, 0.5 AND 0.2 FC.

ALL FIXTURES SHALL HAVE FLUSH MOUNT (FM) FOOTINGS.

THE CALCULATIONS SHOWN WERE MADE UTILIZING ACCEPTED PROCEDURES OF THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. VARIATIONS IN LAMP OUTPUT, BALLAST OUTPUT, LINE VOLTAGE, DIRT DEPRECIATION, AND OTHER FACTORS MAY AFFECT ACTUAL RESULTS. UNLESS OTHERWISE STATED, ALL RESULTS ARE MANTAINED VALUES, UTILIZING ACCEPTED LIGHT LOSS FACTORS (LLF).

SHEET INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
-60 0 30 60 120 240
(IN FEET)
1 INCH = 60 FT.

Plotted: 11/06/19 - 1:40 PM By: bgaulin
File: P:\DESPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown - Franklin TPKE\dwg\Site Plans\0043014015SS16.dwg, ---> 51 OVERALL LIGHTING PLAN

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REV.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJW
15	09/05/19	REV. PER COUNTY COMMENTS	AJW
14	07/11/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BJG
12	05/01/19	REV. PER SHEAR EASEMENT CHANGES AND COUNTY COMMENTS	AJW
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW
10	02/11/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	AJW
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW
8	11/21/18	REV. PER COUNTY COMMENTS	AJW
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW
6	09/27/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW
5	07/17/18	REV. PER TOWNSHIP & BRCC COMMENTS	AJW
4	06/27/18	REV. PER RESOLUTION COMPLIANCE	AJW
3	04/19/18	REV. PER TOWNSHIP, RED & BRCC COMMENTS	AJW

COMMENT: **FINAL FOR SEWER DESIGN**

DJD 09/25/18
CONSTRUCTION CHECK DATE

_____ _____
CONSTRUCTION CHECK DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC.
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 65; TAX MAP SHEET #35
EAST HARTWICK DRIVE, GEORGETOWN FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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8 Robbins Street, Toms River, New Jersey 08753
Ph: 732.974.0198 Fax: 732.974.1302
1301 Central Expressway South, Suite 210, Allen, TX 75013
Ph: 469.964.5658
14521 Old Katy Road, Suite 260, Houston, TX 77079
Ph: 281.798.6464
101 Mopac Expressway South, Barton Oaks Plaza One, Suite 300, Austin, TX 78746
Ph: 512.765.8500
www.dynamicec.com

JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **OVERALL LIGHTING PLAN**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 51 OF 77 Rev. #: 16

CALCULATION SUMMARY

LABEL	SQUARE FEET	AVG	MAX	MIN	AVG/MIN	MAX/MIN	DESCRIPTION
TRACT BOUNDARY EAST	N/A	0.15	2.6	0	N.A.	N.A.	LIGHT LEVELS ALONG EAST PROPERTY LINE ABUTTING BLOCK 28005, LOTS 68 & 69
TRACT BOUNDARY NORTH	N/A	0	0.1	0	N.A.	N.A.	LIGHT LEVELS ALONG NORTH PROPERTY LINE ABUTTING BLOCK 28003, LOT 162
TRACT BOUNDARY SOUTH	N/A	0	0	0	N.A.	N.A.	LIGHT LEVELS ALONG SOUTH PROPERTY LINE ABUTTING R-1 ZONE
CONDO PARKING LOT	16,221	1.48	6.5	0.6	2.47	10.83	LIGHT LEVELS WITHIN CONDO PARKING AREA
INT HARTWICK & LANE D	1,420	2.19	4	1.2	1.83	3.33	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE D
INT HARTWICK & LANE H	1,883	2.25	3.7	0.8	2.81	4.63	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE H
INT HARTWICK & LANE K & JUNIPER	2,968	2.03	5.9	0.4	5.08	14.75	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK, LANE K & JUNIPER STREET
INT HARTWICK & LANE L & G	3,216	1.98	4	0.9	2.20	4.44	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE L
INT HARTWICK & LANES C & J	2,930	2.26	7.1	0.1	22.60	71.00	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK, LANE C & LANE J
INT HARTWICK & TAMWORTH	2,544	3.13	8.1	0.4	7.83	20.25	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & TAMWORTH DRIVE
INT HARTWICK & SWEETBAY	1,516	2.11	8.4	0.3	7.03	28.00	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & SWEETBAY STREET
INT VILLAGE & LANE A	1,692	3.03	5.3	1.4	2.16	3.79	LIGHT LEVEL WITHIN THE INTERSECTION OF VILLAGE DRIVE & LANE A
INT VILLAGE & TAMWORTH	2,363	3.81	9.1	1.3	2.93	7.00	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & TAMWORTH DRIVE
INT VILLAGE & SWEETBAY	2,530	3.15	10.6	0.4	7.88	26.50	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & SWEETBAY STREET
INT VILLAGE & JUNIPER	2,515	2.85	10.2	0.6	4.75	17.00	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & JUNIPER STREET
INT RESEARCH & HARTWICK	3,804	2.65	11.4	0.6	4.42	19.00	LIGHT LEVEL WITHIN THE INTERSECTION OF RESEARCH ROAD & EAST HARTWICK DRIVE
INT TAMWORTH & LANE E	1,826	2.4	6.3	0.5	4.80	12.60	LIGHT LEVELS WITHIN INTERSECTION OF TAMWORTH DRIVE & LANE E
LOT CONDO	84,459	1.20	11.7	0	N.A.	N.A.	LIGHT LEVELS WITHIN CONDO LOT
LOT TOWNHOMES	105,817	0.28	12.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN TOWNHOME PROPERTY LINE
ST HARTWICK	39,815	0.89	8.4	0	N.A.	N.A.	LIGHT LEVELS WITHIN EAST HARTWICK DRIVE
ST VILLAGE RD	49,808	0.7	10.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN VILLAGE DRIVE
ST TAMWORTH	15,309	1.02	8.1	0	N.A.	N.A.	LIGHT LEVELS WITHIN TAMWORTH DRIVE
ST SWEETBAY	7,900	0.46	6.8	0	N.A.	N.A.	LIGHT LEVELS WITHIN SWEETBAY STREET
ST JUNIPER	7,905	0.81	6.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN JUNIPER STREET
WALK ALLEY PARK EAST	1,667	0.36	3.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN EAST ALLEY PARK SIDEWALK
WALK ALLEY PARK WEST	2,186	0.66	5.5	0	N.A.	N.A.	LIGHT LEVELS WITHIN WEST ALLEY PARK SIDEWALK
WALK BIKE PATH	3,754	0.34	2.7	0	N.A.	N.A.	LIGHT LEVELS WITHIN BIKE PATH
WALK C EAST	1,480	1.51	12.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON EAST SIDE OF SWEETBAY STREET
WALK C WEST	1,480	0.01	0.1	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON WEST SIDE OF SWEETBAY STREET
WALK CENTRAL VILLAGE	1,555	0.97	5.2	0.1	9.70	52.00	LIGHT LEVELS WITHIN CENTRAL PARK SIDEWALK ALONG VILLAGE DRIVE
WALK CENTRAL MIDDLE TIER NORTH	808	2.67	7.5	0.2	13.35	37.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF MIDDLE TIER SIDEWALK
WALK CENTRAL MIDDLE TIER SOUTH	820	1.05	2.4	0.1	10.50	24.00	LIGHT LEVELS WITHIN CENTRAL PARK SOUTH SIDE OF MIDDLE TIER SIDEWALK
WALK CENTRAL NORTH TIER NORTH	681	1.74	5.3	0.2	8.70	26.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF NORTH SIDEWALK
WALK CENTRAL NORTH TIER SOUTH	613	1.4	3.7	0.1	14.00	37.00	LIGHT LEVELS WITHIN CENTRAL PARK SOUTH SIDE OF NORTH SIDEWALK
WALK CENTRAL SOUTH TIER NORTH	808	2.56	5.1	0.2	12.80	25.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF SOUTH TIER SIDEWALK
WALK CONDO	2,554	2.86	8.1	0.5	5.72	16.20	LIGHT LEVELS WITHIN CONDOMINIUM SIDEWALK ALONG PARKING
WALK JUNIPER EAST	1,480	0.03	0.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON EAST SIDE OF JUNIPER STREET
WALK JUNIPER WEST	1,480	1.06	8.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON WEST SIDE OF JUNIPER STREET
WALK HARTWICK NORTH	5,560	0.62	2.1	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON NORTH SIDE OF EAST HARTWICK DRIVE
WALK HARTWICK SOUTH	5,833	0.57	5.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON SOUTH SIDE OF EAST HARTWICK DRIVE
WALK VILLAGE NORTH	6,116	0.94	6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON NORTH SIDE OF VILLAGE DRIVE
WALK VILLAGE SOUTH	5,623	1.22	10.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON SOUTH SIDE OF VILLAGE DRIVE
WALK VILLAGE TO TAMWORTH	689	1.08	5.2	0.1	10.80	52.00	LIGHT LEVELS WITHIN SIDEWALK BETWEEN VILLAGE DRIVE & LANE B
WALK PLAY PARK	471	0.55	1.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN THE WEST SIDE PLAY PARK SIDEWALK
WALK TAMWORTH WEST	1,748	0.36	3.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ALONG WEST SIDE OF TAMWORTH DRIVE
WALK TRIANGLE PARK	1,110	0.57	2.6	0	N.A.	N.A.	LIGHT LEVELS WITHINSIDEWALK TO TRIANGLE PARK

LUMINAIRE SCHEDULE

SYMBOL	QUANTITY	LABEL	WATTAGE	MOUNTING HEIGHT	ARRANGEMENT	LIGHT LOSS FACTOR	MANUFACTURER	DESCRIPTION	IES FILE
○	20	A-150H-3-10	150	13'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-155H.ies
○	9	A-150H-5-10	150	13'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 5 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-155H.ies
○	21	SH-150H-3-10	150	13'	SINGLE	0.8	HADCO LIGHTING	SHIELDED HIGH PRESSUE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-105.3HI.IES
○	4	A-150H-3-12	150	15'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-153H.ies
○	1	A-150H-5-12	150	15'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSUE SODIUM, TYPE 5 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-155H.ies
○	5	SH-150H-3-12	150	15'	SINGLE	0.8	HADCO LIGHTING	SHIELDED HIGH PRESSUE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-105.3HI.IES
◎	35	B-150H-5	150	3'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM TYPE 5 PATTERN HADCO LIGHTING CLASSIC SERIES BOLLARD LIGHT	EL20-105N-02.ies

ISO CURVES ARE MAINTAINED AND SHOWN AT 1.0, 0.5 AND 0.2 FC.

ALL FIXTURES SHALL HAVE FLUSH MOUNT (FM) FOOTINGS.

THE CALCULATIONS SHOWN WERE MADE UTILIZING ACCEPTED PROCEDURES OF THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. VARIATIONS IN LAMP OUTPUT, BALLAST OUTPUT, LINE VOLTAGE, DIRT DEPRECIATION, AND OTHER FACTORS MAY AFFECT ACTUAL RESULTS. UNLESS OTHERWISE STATED, ALL RESULTS ARE MAINTAINED VALUES, UTILIZING ACCEPTED LIGHT LOSS FACTORS (LLF).

THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

SEE SHEET 3 OF 77 FOR LIGHTING NOTES
SEE SHEET 66 OF 77 FOR LIGHTING DETAILS

SHEET A
SHEET B

TAX LOT 162
BLOCK 28003
N/F TAPESTRY AT MONTGOMERY HOA INC
DB. 6716, PG. 1058

TAX LOT 211
BLOCK 28003
N/F SHARBELL PLAINSBORO INC
DB./PG. N/A

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWSHIP (PORTION OF TAX LOT 211, BLOCK 28003) CONTAINING (7,661 SF) (0.18 AC)

TAX LOT 66
BLOCK 28005
N/F KT CAPITAL, LLC
DB. 6402, PG. 1822
1,135,961 SF± 26.076 AC±

ARH ZONE
PMUD ZONE

APPROX. LIMIT OF 0.2FC ISOLUX LINE (TYP.)
APPROX. LIMIT OF 0.5FC ISOLUX LINE (TYP.)
APPROX. LIMIT OF 1.0FC ISOLUX LINE (TYP.)

PROPOSED LOT 2 (82,525 SF)
PROPOSED 40 UNIT CONDOMINIUM BUILDING (23,077 SF)

VILLAGE DRIVE (25-MPH)
SWEETBAY STREET
JUNIPER STREET
LANE A
LANE B
LANE C

SHEET A
SHEET C

SHEET INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
(IN FEET)
1 INCH = 30 FT.

Plotted: 11/06/19 - 1:41 PM By: bgaudin
File: P:\DEGPC PROJECTS\0043 Shorbell Development\14-015 Research Rd & Georgetown - Franklin TPKE\dwg\Site Plans\0431401SS16.dwg, ---> 52 LIGHTING PLAN A

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NO.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJW
15	09/05/19	REV. PER COUNTY COMMENTS	AJW
14	07/17/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BSC
12	05/07/19	REV. PER SPEAKS EASEMENT CHANGES AND COUNTY COMMENTS	AJW/LS
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW
10	02/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/DS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/DS
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/DS
7	10/16/18	REV. PER RESOLUTION COMPLIANCE	AJW/DS
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/DS
5	07/31/18	REV. PER TOWNSHIP & BRSC COMMENTS	AJW
4	07/25/18	REV. PER RESOLUTION COMPLIANCE	AJW/DS
3	04/19/18	REV. PER TOWNSHIP, BCA & BRSC COMMENTS	AJW/DS
2	02/26/18	REV. PER COUNTY COMMENTS	AJW/DS
1	09/25/18	REV. PER COUNTY COMMENTS	BP

COMMENTS: **FINAL FOR SEWER DESIGN**

CONSTRUCTION CHECK: DJD — DATE: 09/25/18
CONSTRUCTION CHECK: — — DATE: —

PROJECT: SHARBELL BUILDING COMPANY, LLC
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 66; TAX MAP SHEET #30
(GEORGETOWN-FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

PROTECT YOURSELF
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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53540

TITLE: LIGHTING PLAN A

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 52 OF 77 — Rev. #: 16

LUMINAIRE SCHEDULE

SYMBOL	QUANTITY	LABEL	WATTAGE	MOUNTING HEIGHT	ARRANGEMENT	LIGHT LOSS FACTOR	MANUFACTURER	DESCRIPTION	IES FILE
✪	20	A-150H-3-10	150	13'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-155H.ies
✪	9	A-150H-5-10	150	13'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 5 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-155SH.ies
☕	21	SH-150H-3-10	150	13'	SINGLE	0.8	HADCO LIGHTING	SHIELDED HIGH PRESSURE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-105SHH.IES
✪	4	A-150H-3-12	150	15'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-155H.ies
✪	1	A-150H-5-12	150	15'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 5 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-155SH.ies
☕	5	SH-150H-3-12	150	15'	SINGLE	0.8	HADCO LIGHTING	SHIELDED HIGH PRESSURE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-105SHH.IES
◎	35	B-150H-5	150	3'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM TYPE 5 PATTERN HADCO LIGHTING CLASSIC SERIES BOLLARD LIGHT	EL20-105SV-02.ies

ISO CURVES ARE MAINTAINED AND SHOWN AT 1.0, 0.5 AND 0.2 FC.

ALL FIXTURES SHALL HAVE FLUSH MOUNT (FM) FOOTINGS.

THE CALCULATIONS SHOWN WERE MADE UTILIZING ACCEPTED PROCEDURES OF THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. VARIATIONS IN LAMP OUTPUT, BALLAST OUTPUT, LINE VOLTAGE, DIRT DEPRECIATION, AND OTHER FACTORS MAY AFFECT ACTUAL RESULTS. UNLESS OTHERWISE STATED, ALL RESULTS ARE MAINTAINED VALUES, UTILIZING ACCEPTED LIGHT LOSS FACTORS (LLF).

THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

CALCULATION SUMMARY

LABEL	SQUARE FEET	AVG	MAX	MIN	AVG/MIN	MAX/MIN	DESCRIPTION
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TRACT BOUNDARY SOUTH	N/A	0	0	0	N.A.	N.A.	LIGHT LEVELS ALONG SOUTH PROPERTY LINE ABUTTING R-1 ZONE
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ST TAMWORTH	15,309	1.02	8.1	0	N.A.	N.A.	LIGHT LEVELS WITH TAMWORTH DRIVE
ST SWEETBAY	7,900	0.46	6.8	0	N.A.	N.A.	LIGHT LEVELS WITHIN SWEETBAY STREET
ST JUNIPER	7,905	0.81	6.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN JUNIPER STREET
WALK ALLEY PARK EAST	1,667	0.36	3.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN EAST ALLEY PARK SIDEWALK
WALK ALLEY PARK WEST	2,186	0.66	5.5	0	N.A.	N.A.	LIGHT LEVELS WITHIN WEST ALLEY PARK SIDEWALK
WALK BIKE PATH	3,754	0.34	2.7	0	N.A.	N.A.	LIGHT LEVELS WITHIN BIKE PATH
WALK C EAST	1,480	1.51	12.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON EAST SIDE OF SWEETBAY STREET
WALK C WEST	1,480	0.01	0.1	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON WEST SIDE OF SWEETBAY STREET
WALK CENTRAL VILLAGE	1,555	0.97	5.2	0.1	9.70	52.00	LIGHT LEVELS WITHIN CENTRAL PARK SIDEWALK ALONG VILLAGE DRIVE
WALK CENTRAL MIDDLE TIER NORTH	808	2.67	7.5	0.2	13.35	37.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF MIDDLE TIER SIDEWALK
WALK CENTRAL MIDDLE TIER SOUTH	820	1.05	2.4	0.1	10.50	24.00	LIGHT LEVELS WITHIN CENTRAL PARK SOUTH SIDE OF MIDDLE TIER SIDEWALK
WALK CENTRAL NORTH TIER NORTH	681	1.74	5.3	0.2	8.70	26.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF NORTH SIDEWALK
WALK CENTRAL NORTH TIER SOUTH	613	1.4	3.7	0.1	14.00	37.00	LIGHT LEVELS WITHIN CENTRAL PARK SOUTH SIDE OF NORTH SIDEWALK
WALK CENTRAL SOUTH TIER NORTH	808	2.56	5.1	0.2	12.80	25.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF SOUTH TIER SIDEWALK
WALK CONDO	2,554	2.86	8.1	0.5	5.72	16.20	LIGHT LEVELS WITHIN CONDOMINIUM SIDEWALK ALONG PARKING
WALK JUNIPER EAST	1,480	0.03	0.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON EAST SIDE OF JUNIPER STREET
WALK JUNIPER WEST	1,480	1.06	8.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON WEST SIDE OF JUNIPER STREET
WALK HARTWICK NORTH	5,560	0.62	2.1	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON NORTH SIDE OF EAST HARTWICK DRIVE
WALK HARTWICK SOUTH	5,833	0.57	5.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON SOUTH SIDE OF EAST HARTWICK DRIVE
WALK VILLAGE NORTH	6,116	0.94	6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON NORTH SIDE OF VILLAGE DRIVE
WALK VILLAGE SOUTH	5,623	1.22	10.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON SOUTH SIDE OF VILLAGE DRIVE
WALK VILLAGE TO TAMWORTH	689	1.08	5.2	0.1	10.80	52.00	LIGHT LEVELS WITHIN SIDEWALK BETWEEN VILLAGE DRIVE & LANE B
WALK PLAY PARK	471	0.55	1.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN THE WEST SIDE PLAY PARK SIDEWALK
WALK TAMWORTH WEST	1,748	0.36	3.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ALONG WEST SIDE OF TAMWORTH DRIVE
WALK TRIANGLE PARK	1,110	0.57	2.6	0	N.A.	N.A.	LIGHT LEVELS WITHINSIDEWALK TO TRIANGLE PARK

APPROX. LIMIT OF 0.2FC ISOLUX LINE (TYP)
APPROX. LIMIT OF 0.5FC ISOLUX LINE (TYP)
APPROX. LIMIT OF 1.0FC ISOLUX LINE (TYP)
ARH ZONE
PMUD ZONE
N28°58'18" (DEED)
S61°01'42" E 1,178.18' (DEED)
PROPOSED LOT 2 (82,525 SF)
PROPOSED 40 UNIT CONDOMINIUM BUILDING (23,077 SF)
VILLAGE DRIVE (25 MPH)
SWEETBAY STREET
JUNIPER STREET
LANE C
LANE D
LANE E
LANE F
TAX LOT 66
BLOCK 28005
N/F KT CAPITAL, LLC
DB: 6402, PG. 1822
135,861 SF, 26.076 AC.
SITE LIGHT TO BE INSTALLED BY OWNER OF BLOCK 28005, LOT 65
RD 107
BOX CULVERT (100' LONG x 30' WIDE x 7' HIGH)
SHEET B
SHEET D

SEE SHEET 3 OF 77 FOR LIGHTING NOTES
SEE SHEET 66 OF 77 FOR LIGHTING DETAILS

SHEET INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
(IN FEET)
1 INCH = 30 FT.

REV	DATE	COMMENTS
16	11/01/19	REV. PER FIELD CHANGES
15	09/03/19	REV. PER COUNTY COMMENTS
14	07/11/19	REV. PER COUNTY COMMENTS
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS
12	05/01/19	REV. PER SHEAR EASEMENT CHANGES AND COUNTY COMMENTS
11	03/27/19	REV. PER TOWNSHIP COMMENTS
10	02/11/19	REV. PER PLANNING AND TOWNSHIP COMMENTS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE
8	11/21/18	REV. PER COUNTY COMMENTS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE
6	08/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS
5	07/17/18	REV. PER TOWNSHIP & BRSC COMMENTS
4	06/19/18	REV. PER RESOLUTION COMPLIANCE
3	04/19/18	REV. PER TOWNSHIP, BCPB & BRSC COMMENTS
2	03/15/18	REV. PER COUNTY COMMENTS
1	01/16/18	REV. PER COUNTY COMMENTS
REV.	DATE	COMMENTS

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COMMENTS: **FINAL FOR SEWER DESIGN**

CONSTRUCTION CHECK — DATE —

CONSTRUCTION CHECK DJD DATE 09/25/18

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 65 TAX MAP SHEET #53
CENTRAL PARK AT VILLAGE DRIVE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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1904 Main Street, Lake Como, New Jersey 07719
Ph: 732.974.0198 • Fax: 732.974.8313
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1301 Central Expressway South, Suite 310, Allen, TX 75013
1-972.534.3700
14521 Old Katy Road, Suite 250, Houston, TX 77079
Ph: 281.789.6400
901 Mopac Expressway South, Barton Oaks Plaza One, Suite 300, Austin, TX. 78746
Ph: 512.961.8060
www.dynamicec.com

JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **LIGHTING PLAN B**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 53 OF 77 — Rev. #: 16

Plotted: 11/06/19 – 1:41 PM, By: bgaudin
File: P:\DEDPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\0043401SS16.dwg, ----> 53 LIGHTING PLAN B

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THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

SEE SHEET 3 OF 77 FOR LIGHTING NOTES
SEE SHEET 66 OF 77 FOR LIGHTING DETAILS

TAX LOT 211
BLOCK 28003
N/F SHARBELL PLAINSBORO INC
DB./Pg. N/A

L=214.49'
R=187.30'
D =65°36'48"
CB=N28° 54' 56"E
CD=202.98'

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 211, BLOCK 28003) CONTAINING (7,661 SF) (0.18 AC)

ARH ZONE

PMUD ZONE

L=189.40'
R=630.00'
D =17°13'30"
CB=N53° 06' 34"E
CD=188.69'

SHEET A
SHEET C

TAX LOT 66
BLOCK 28005
N/F KT CAPITAL, LLC
DB. 6402, PG. 1922
1,135,861 SF; 26.076 AC.

LANE A
LANE B
LANE C
LANE H
LANE I
LANE J
LANE K

SWEETBAY STREET
JUNIPER STREET

EAST HARTWICK DRIVE
(25 MPH)

L=295.24'
R=600.00'
D=28°11'36"
CB=N30° 24' 02"E
CD=292.27'

PMUD ZONE

R-1 ZONE

TAX LOT 49
N/F ALIA & LISA B. SILVERGLADE
DB. 6320, PG. 1184

TAX LOT 50
N/F LISA A. ROBBINS & K. M. MILLER
DB. 2220, PG. 500

TAX LOT 51
N/F JAMES T. COLLINS JR
DB. 1893, PG. 754

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARG
DB./PG. N/A

APPROX. LIMIT OF 0.2FC ISOLUX LINE (TYP)
APPROX. LIMIT OF 0.5FC ISOLUX LINE (TYP)
APPROX. LIMIT OF 1.0FC ISOLUX LINE (TYP)

SHEET C
SHEET D

CALCULATION SUMMARY

LABEL	SQUARE FEET	AVG	MAX	MIN	AVG/MIN	MAX/MIN	DESCRIPTION
TRACT BOUNDARY EAST	N/A	0.15	2.6	0	N.A.	N.A.	LIGHT LEVELS ALONG EAST PROPERTY LINE ABUTTING BLOCK 28005, LOTS 68 & 69
TRACT BOUNDARY NORTH	N/A	0	0.1	0	N.A.	N.A.	LIGHT LEVELS ALONG NORTH PROPERTY LINE ABUTTING BLOCK 28003, LOT 162
TRACT BOUNDARY SOUTH	N/A	0	0	0	N.A.	N.A.	LIGHT LEVELS ALONG SOUTH PROPERTY LINE ABUTTING R-1 ZONE
CONDO PARKING LOT	16,221	1.48	6.5	0.6	2.47	10.83	LIGHT LEVELS WITHIN CONDO PARKING AREA
INT HARTWICK & LANE D	1,420	2.19	4	1.2	1.83	3.33	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE D
INT HARTWICK & LANE H	1,883	2.25	3.7	0.8	2.81	4.63	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE H
INT HARTWICK & LANE K & JUNIPER	2,968	2.03	5.9	0.4	5.08	14.75	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK, LANE K & JUNIPER STREET
INT HARTWICK & LANE L & G	3,216	1.98	4	0.9	2.20	4.44	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE L
INT HARTWICK & LANES C & J	2,930	2.26	7.1	0.1	22.60	71.00	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK, LANE C & LANE J
INT HARTWICK & TAMWORTH	2,544	3.13	8.1	0.4	7.83	20.25	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & TAMWORTH DRIVE
INT HARTWICK & SWEETBAY	1,516	2.11	8.4	0.3	7.03	28.00	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & SWEETBAY STREET
INT VILLAGE & LANE A	1,692	3.03	5.3	1.4	2.16	3.79	LIGHT LEVEL WITHIN THE INTERSECTION OF VILLAGE DRIVE & LANE A
INT VILLAGE & TAMWORTH	2,363	3.81	9.1	1.3	2.93	7.00	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & TAMWORTH DRIVE
INT VILLAGE & SWEETBAY	2,530	3.15	10.6	0.4	7.88	26.50	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & SWEETBAY STREET
INT VILLAGE & JUNIPER	2,515	2.85	10.2	0.6	4.75	17.00	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & JUNIPER STREET
INT RESEARCH & HARTWICK	3,804	2.65	11.4	0.6	4.42	19.00	LIGHT LEVEL WITHIN THE INTERSECTION OF RESEARCH ROAD & EAST HARTWICK DRIVE
INT TAMWORTH & LANE E	1,826	2.4	6.3	0.5	4.80	12.60	LIGHT LEVELS WITHIN INTERSECTION OF TAMWORTH DRIVE & LANE E
LOT CONDO	84,459	1.20	11.7	0	N.A.	N.A.	LIGHT LEVELS WITHIN CONDO LOT
LOT TOWNHOMES	105,817	0.28	12.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN TOWNHOME PROPERTY LINE
ST HARTWICK	39,815	0.89	8.4	0	N.A.	N.A.	LIGHT LEVELS WITHIN EAST HARTWICK DRIVE
ST VILLAGE RD	49,808	0.7	10.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN VILLAGE DRIVE
ST TAMWORTH	15,309	1.02	8.1	0	N.A.	N.A.	LIGHT LEVELS WITH TAMWORTH DRIVE
ST SWEETBAY	7,900	0.46	6.8	0	N.A.	N.A.	LIGHT LEVELS WITHIN SWEETBAY STREET
ST JUNIPER	7,905	0.81	6.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN JUNIPER STREET
WALK ALLEY PARK EAST	1,667	0.36	3.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN EAST ALLEY PARK SIDEWALK
WALK ALLEY PARK WEST	2,186	0.66	5.5	0	N.A.	N.A.	LIGHT LEVELS WITHIN WEST ALLEY PARK SIDEWALK
WALK BIKE PATH	3,754	0.34	2.7	0	N.A.	N.A.	LIGHT LEVELS WITHIN BIKE PATH
WALK C EAST	1,480	1.51	12.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON EAST SIDE OF SWEETBAY STREET
WALK C WEST	1,480	0.01	0.1	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON WEST SIDE OF SWEETBAY STREET
WALK CENTRAL VILLAGE	1,555	0.97	5.2	0.1	9.70	52.00	LIGHT LEVELS WITHIN CENTRAL PARK SIDEWALK ALONG VILLAGE DRIVE
WALK CENTRAL MIDDLE TIER NORTH	808	2.67	7.5	0.2	13.35	37.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF MIDDLE TIER SIDEWALK
WALK CENTRAL MIDDLE TIER SOUTH	820	1.05	2.4	0.1	10.50	24.00	LIGHT LEVELS WITHIN CENTRAL PARK SOUTH SIDE OF MIDDLE TIER SIDEWALK
WALK CENTRAL NORTH TIER NORTH	681	1.74	5.3	0.2	8.70	26.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF NORTH SIDEWALK
WALK CENTRAL NORTH TIER SOUTH	613	1.4	3.7	0.1	14.00	37.00	LIGHT LEVELS WITHIN CENTRAL PARK SOUTH SIDE OF NORTH SIDEWALK
WALK CENTRAL SOUTH TIER NORTH	808	2.56	5.1	0.2	12.80	25.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF SOUTH TIER SIDEWALK
WALK CONDO	2,554	2.86	8.1	0.5	5.72	16.20	LIGHT LEVELS WITHIN CONDOMINIUM SIDEWALK ALONG PARKING
WALK JUNIPER EAST	1,480	0.03	0.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON EAST SIDE OF JUNIPER STREET
WALK JUNIPER WEST	1,480	1.06	8.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON WEST SIDE OF JUNIPER STREET
WALK HARTWICK NORTH	5,560	0.62	2.1	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON NORTH SIDE OF EAST HARTWICK DRIVE
WALK HARTWICK SOUTH	5,833	0.57	5.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON SOUTH SIDE OF EAST HARTWICK DRIVE
WALK VILLAGE NORTH	6,116	0.94	6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON NORTH SIDE OF VILLAGE DRIVE
WALK VILLAGE SOUTH	5,623	1.22	10.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON SOUTH SIDE OF VILLAGE DRIVE
WALK VILLAGE TO TAMWORTH	689	1.08	5.2	0.1	10.80	52.00	LIGHT LEVELS WITHIN SIDEWALK BETWEEN VILLAGE DRIVE & LANE B
WALK PLAY PARK	471	0.55	1.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN THE WEST SIDE PLAY PARK SIDEWALK
WALK TAMWORTH WEST	1,748	0.36	3.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ALONG WEST SIDE OF TAMWORTH DRIVE
WALK TRIANGLE PARK	1,110	0.57	2.6	0	N.A.	N.A.	LIGHT LEVELS WITHINSIDEWALK TO TRIANGLE PARK

LUMINAIRE SCHEDULE

SYMBOL	QUANTITY	LABEL	WATTAGE	MOUNTING HEIGHT	ARRANGEMENT	LIGHT LOSS FACTOR	MANUFACTURER	DESCRIPTION	IES FILE
	20	A-150H-3-10	150	13'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 10' POLE	103-155SH.ies
	9	A-150H-5-10	150	13'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 5 PATTERN, HAGERSTOWN SERIES ON 10' POLE	103-155SH.ies
	21	SH-150H-3-10	150	13'	SINGLE	0.8	HADCO LIGHTING	SHIELDED HIGH PRESSUE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 10' POLE	103-105SHM.IES
	4	A-150H-3-12	150	15'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 12' POLE	103-155SH.ies
	1	A-150H-5-12	150	15'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 5 PATTERN, HAGERSTOWN SERIES ON 12' POLE	103-155SH.ies
	5	SH-150H-3-12	150	15'	SINGLE	0.8	HADCO LIGHTING	SHIELDED HIGH PRESSUE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 12' POLE	103-105SHM.IES
	35	B-150H-5	150	3'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM TYPE 5 PATTERN HADCO LIGHTING CLASSIC SERIES BOLLARD LIGHT	EL20-105SV-02.ies

ISO CURVES ARE MAINTAINED AND SHOWN AT 1.0, 0.5 AND 0.2 FC.

ALL FIXTURES SHALL HAVE FLUSH MOUNT (FM) FOOTINGS.
THE CALCULATIONS SHOWN WERE MADE UTILIZING ACCEPTED PROCEDURES OF THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. VARIATIONS IN LAMP OUTPUT, BALLAST OUTPUT, LINE VOLTAGE, DIRT DEPRECIATION, AND OTHER FACTORS MAY AFFECT ACTUAL RESULTS. UNLESS OTHERWISE STATED, ALL RESULTS ARE MAINTAINED VALUES, UTILIZING ACCEPTED LIGHT LOSS FACTORS (LLF).

SHEET INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

Plotted: 11/06/19 – 1:42 PM By: bmcgilin

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REV.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJW
15	08/05/19	REV. PER COUNTY COMMENTS	AJW
14	07/11/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BJG
12	05/01/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JS
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW/JS
10	02/11/19	REV. PER TOWNSHIP AND COUNTY COMMENTS	AJW/JS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/JS
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/JS
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JS
5	07/17/18	REV. PER TOWNSHIP & BRSC COMMENTS	AJW
4	06/01/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JS
3	04/19/18	REV. PER TOWNSHIP, RSD & BRSC COMMENTS	AJW/JS
2	03/16/18	REV. PER COUNTY COMMENTS	AJW/JS
1	02/16/18	REV. PER TOWNSHIP ENGINEER COMMENTS	AJW/JS

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18 — CONSTRUCTION CHECK — DATE
— — CONSTRUCTION CHECK — DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC.
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 66; TAX MAP SHEET #50
GEORGE DAVIS ROAD & EAST HARTWICK DRIVE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53540

TITLE: LIGHTING PLAN C

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 54 OF 77 — Rev. #: 16

THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

SEE SHEET 3 OF 77 FOR LIGHTING NOTES
SEE SHEET 66 OF 77 FOR LIGHTING DETAILS

EAST HARTWICK DRIVE (25 MPH)

NORTH DRIVE (25 MPH)

BRECKNELL WAY (25 MPH)

LANE K

LANE L

LANE M

LANE G

PMUD ZONE

R-1 ZONE

HC ZONE

REO-3 ZONE

SHEET C

SHEET D

PROP. DEDICATION TO OWNER OF BLOCK 28005, LOT 65 (14,330 SF) 0.33 AC±

SITE LIGHT TO BE INSTALLED BY OWNER OF BLOCK 28005, LOT 65

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 57, BLOCK 28003) CONTAINING (1,474 SF) (0.0338 AC)

AREA DEDICATED TO SOMERSET COUNTY FOR ROADWAY PURPOSES (1,980 SF) (0.05 AC)±

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARGARET J.
DB./PG. N/A

TAX LOT 55
N/F HARRY W. & BERTHA ZOLL
DB./PG. N/A

TAX LOT 56
N/F ODILIA & MIGUEL A. SANTIZO
DB. 2180, PG. 438

TAX LOT 57
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

TAX LOT 58
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

ETOWN FRANKLIN TURNPIKE
(A.K.A. COUNTY ROUTE 518)
(VARIABLE ROW WIDTH PER TAX MAP)

CALCULATION SUMMARY

LABEL	SQUARE FEET	AVG	MAX	MIN	AVG/MIN	MAX/MIN	DESCRIPTION
TRACT BOUNDARY EAST	N/A	0.15	2.6	0	N.A.	N.A.	LIGHT LEVELS ALONG EAST PROPERTY LINE ABUTTING BLOCK 28005, LOTS 68 & 69
TRACT BOUNDARY NORTH	N/A	0	0.1	0	N.A.	N.A.	LIGHT LEVELS ALONG NORTH PROPERTY LINE ABUTTING BLOCK 28003, LOT 162
TRACT BOUNDARY SOUTH	N/A	0	0	0	N.A.	N.A.	LIGHT LEVELS ALONG SOUTH PROPERTY LINE ABUTTING R-1 ZONE
CONDO PARKING LOT	16,221	1.48	6.5	0.6	2.47	10.83	LIGHT LEVELS WITHIN CONDO PARKING AREA
INT HARTWICK & LANE D	1,420	2.19	4	1.2	1.83	3.33	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE D
INT HARTWICK & LANE H	1,883	2.25	3.7	0.8	2.81	4.63	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE H
INT HARTWICK & LANE K & JUNIPER	2,968	2.03	5.9	0.4	5.08	14.75	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK, LANE K & JUNIPER STREET
INT HARTWICK & LANE L & G	3,216	1.98	4	0.9	2.20	4.44	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & LANE L
INT HARTWICK & LANES C & J	2,930	2.26	7.1	0.1	22.60	71.00	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK, LANE C & LANE J
INT HARTWICK & TAMWORTH	2,544	3.13	8.1	0.4	7.83	20.25	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & TAMWORTH DRIVE
INT HARTWICK & SWEETBAY	1,516	2.11	8.4	0.3	7.03	28.00	LIGHT LEVEL WITHIN THE INTERSECTION OF EAST HARTWICK & SWEETBAY STREET
INT VILLAGE & LANE A	1,692	3.03	5.3	1.4	2.16	3.79	LIGHT LEVEL WITHIN THE INTERSECTION OF VILLAGE DRIVE & LANE A
INT VILLAGE & TAMWORTH	2,363	3.81	9.1	1.3	2.93	7.00	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & TAMWORTH DRIVE
INT VILLAGE & SWEETBAY	2,530	3.15	10.6	0.4	7.88	26.50	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & SWEETBAY STREET
INT VILLAGE & JUNIPER	2,515	2.85	10.2	0.6	4.75	17.00	LIGHT LEVELS WITHIN INTERSECTION OF VILLAGE DRIVE & JUNIPER STREET
INT RESEARCH & HARTWICK	3,804	2.65	11.4	0.6	4.42	19.00	LIGHT LEVEL WITHIN THE INTERSECTION OF RESEARCH ROAD & EAST HARTWICK DRIVE
INT TAMWORTH & LANE E	1,826	2.4	6.3	0.5	4.80	12.60	LIGHT LEVELS WITHIN INTERSECTION OF TAMWORTH DRIVE & LANE E
LOT CONDO	84,459	1.20	11.7	0	N.A.	N.A.	LIGHT LEVELS WITHIN CONDO LOT
LOT TOWNHOMES	105,817	0.28	12.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN TOWNHOME PROPERTY LINE
ST HARTWICK	39,815	0.89	8.4	0	N.A.	N.A.	LIGHT LEVELS WITHIN EAST HARTWICK DRIVE
ST VILLAGE RD	49,808	0.7	10.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN VILLAGE DRIVE
ST TAMWORTH	15,309	1.02	8.1	0	N.A.	N.A.	LIGHT LEVELS WITH TAMWORTH DRIVE
ST SWEETBAY	7,900	0.46	6.8	0	N.A.	N.A.	LIGHT LEVELS WITHIN SWEETBAY STREET
ST JUNIPER	7,905	0.81	6.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN JUNIPER STREET
WALK ALLEY PARK EAST	1,667	0.36	3.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN EAST ALLEY PARK SIDEWALK
WALK ALLEY PARK WEST	2,186	0.66	5.5	0	N.A.	N.A.	LIGHT LEVELS WITHIN WEST ALLEY PARK SIDEWALK
WALK BIKE PATH	3,754	0.34	2.7	0	N.A.	N.A.	LIGHT LEVELS WITHIN BIKE PATH
WALK C EAST	1,480	1.51	12.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON EAST SIDE OF SWEETBAY STREET
WALK C WEST	1,480	0.01	0.1	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON WEST SIDE OF SWEETBAY STREET
WALK CENTRAL VILLAGE	1,555	0.97	5.2	0.1	9.70	52.00	LIGHT LEVELS WITHIN CENTRAL PARK SIDEWALK ALONG VILLAGE DRIVE
WALK CENTRAL MIDDLE TIER NORTH	808	2.67	7.5	0.2	13.35	37.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF MIDDLE TIER SIDEWALK
WALK CENTRAL MIDDLE TIER SOUTH	820	1.05	2.4	0.1	10.50	24.00	LIGHT LEVELS WITHIN CENTRAL PARK SOUTH SIDE OF MIDDLE TIER SIDEWALK
WALK CENTRAL NORTH TIER NORTH	681	1.74	5.3	0.2	8.70	26.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF NORTH SIDEWALK
WALK CENTRAL NORTH TIER SOUTH	613	1.4	3.7	0.1	14.00	37.00	LIGHT LEVELS WITHIN CENTRAL PARK SOUTH SIDE OF NORTH SIDEWALK
WALK CENTRAL SOUTH TIER NORTH	808	2.56	5.1	0.2	12.80	25.50	LIGHT LEVELS WITHIN CENTRAL PARK NORTH SIDE OF SOUTH TIER SIDEWALK
WALK CONDO	2,554	2.86	8.1	0.5	5.72	16.20	LIGHT LEVELS WITHIN CONDOMINIUM SIDEWALK ALONG PARKING
WALK JUNIPER EAST	1,480	0.03	0.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON EAST SIDE OF JUNIPER STREET
WALK JUNIPER WEST	1,480	1.06	8.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON WEST SIDE OF JUNIPER STREET
WALK HARTWICK NORTH	5,560	0.62	2.1	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON NORTH SIDE OF EAST HARTWICK DRIVE
WALK HARTWICK SOUTH	5,833	0.57	5.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON SOUTH SIDE OF EAST HARTWICK DRIVE
WALK VILLAGE NORTH	6,116	0.94	6	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON NORTH SIDE OF VILLAGE DRIVE
WALK VILLAGE SOUTH	5,623	1.22	10.2	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ON SOUTH SIDE OF VILLAGE DRIVE
WALK VILLAGE TO TAMWORTH	689	1.08	5.2	0.1	10.80	52.00	LIGHT LEVELS WITHIN SIDEWALK BETWEEN VILLAGE DRIVE & LANE B
WALK PLAY PARK	471	0.55	1.6	0	N.A.	N.A.	LIGHT LEVELS WITHIN THE WEST SIDE PLAY PARK SIDEWALK
WALK TAMWORTH WEST	1,748	0.36	3.3	0	N.A.	N.A.	LIGHT LEVELS WITHIN SIDEWALK ALONG WEST SIDE OF TAMWORTH DRIVE
WALK TRIANGLE PARK	1,110	0.57	2.6	0	N.A.	N.A.	LIGHT LEVELS WITHINSIDEWALK TO TRIANGLE PARK

LUMINAIRE SCHEDULE

SYMBOL	QUANTITY	LABEL	WATTAGE	MOUNTING HEIGHT	ARRANGEMENT	LIGHT LOSS FACTOR	MANUFACTURER	DESCRIPTION	IES FILE
○	20	A-150H-3-10	150	13'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-155SH.ies
○	9	A-150H-5-10	150	13'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 5 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-155SH.ies
⊕	21	SH-150H-3-10	150	13'	SINGLE	0.8	HADCO LIGHTING	SHIELDED HIGH PRESSUE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 10' POLE	T03-10SSHIES
○	4	A-150H-3-12	150	15'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-153H.ies
○	1	A-150H-5-12	150	15'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSUE SODIUM, TYPE 5 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-155SH.ies
⊕	5	SH-150H-3-12	150	15'	SINGLE	0.8	HADCO LIGHTING	SHIELDED HIGH PRESSUE SODIUM, TYPE 3 PATTERN, HAGERSTOWN SERIES ON 12' POLE	T03-10SSHIES
◎	35	B-150H-5	150	3'	SINGLE	0.8	HADCO LIGHTING	HIGH PRESSURE SODIUM TYPE 5 PATTERN HADCO LIGHTING CLASSIC SERIES BOLLARD LIGHT	EL20-105SV-02.ies

ISO CURVES ARE MANTAINED AND SHOWN AT 1.0, 0.5 AND 0.2 FC.

ALL FIXTURES SHALL HAVE FLUSH MOUNT (FM) FOOTINGS.

THE CALCULATIONS SHOWN WERE MADE UTILIZING ACCEPTED PROCEDURES OF THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. VARIATIONS IN LAMP OUTPUT, BALLAST OUTPUT, LINE VOLTAGE, DIRT DEPRECIATION, AND OTHER FACTORS MAY AFFECT ACTUAL RESULTS. UNLESS OTHERWISE STATED, ALL RESULTS ARE MANTAINED VALUES, UTILIZING ACCEPTED LIGHT LOSS FACTORS (LLF).

SHEET INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

REV.	DATE	COMMENTS
A-8	11/01/18	REV. PER FIELD CHANGES
A-7	09/05/18	REV. PER COUNTY COMMENTS
A-6	07/17/18	REV. PER COUNTY COMMENTS
A-5	05/22/18	REVISIONS PER TOWNSHIP ENGINEER COMMENTS
A-4	05/07/18	REV. PER SPEAR EASEMENT CHANGES AND COUNTY COMMENTS
A-3	04/19/18	REV. PER TOWNSHIP ENGINEER COMMENTS
A-2	12/06/18	REV. PER RESOLUTION COMPLIANCE
A-1	11/21/18	REV. PER COUNTY COMMENTS
A-0	10/15/18	REV. PER RESOLUTION COMPLIANCE
A-9	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS
A-8	07/17/18	REV. PER TOWNSHIP & SRTC COMMENTS
A-7	05/21/18	REV. PER RESOLUTION COMPLIANCE
A-6	04/19/18	REV. PER TOWNSHIP, RED & REGC COMMENTS
A-5	03/16/18	REV. PER COUNTY COMMENTS

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18 — CONSTRUCTION CHECK DATE

— — — CONSTRUCTION CHECK DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 65; TAX MAP SHEET #35
(LOCATED ON THE NORTH SIDE OF RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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www.dynamicec.com

JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: LIGHTING PLAN D

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 55 OF 77 — Rev. #: 16

Plotted: 11/06/19 – 1:43 PM By: bgaudin
File: P:\DEDPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\0043140155116.dwg, ----> 55 LIGHTING PLAN D

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THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY

SEE SHEET 62 OF 77 FOR SOIL EROSION NOTES & DETAILS

MYSTIC DRIVE (AS ROW WIDTH PER TAX MAP)

HARTWICK DRIVE (50' ROW WIDTH PER TAX MAP)

VILLAGE DRIVE (50' ROW WIDTH PER TAX MAP)

EAST HARTWICK DRIVE (25 MPH)

LANE A

LANE B

LANE C

LANE D

LANE E

LANE F

LANE G

GEORGETOWN FRANKLIN TURNPIKE (A.K.A. COUNTY ROUTE 518) (VARIABLE ROW WIDTH PER TAX MAP)

TAX LOT 98

TAX LOT 99

TAX LOT 100

TAX LOT 101

TAX LOT 102

TAX LOT 161

TAX LOT 65.01
N/F VILLAGE SHOPPER III, LLC
DB. 6882, PG. 3765

PROP. DEDICATION TO BE OBTAINED BY OWNER OF BLOCK 28005, LOT 65 (7,070 SF) (0.16 AC)

TAX LOT 162
BLOCK 28003
N/F TAPESTRY AT MONTGOMERY HOA INC.
DB. 6716, PG. 1058

TAX LOT 211
BLOCK 28003
N/F SHARBELL PLAINSBORO INC
DB./PG. N/A

TAX LOT 46
N/F CHIH-YUAN SHIH & CUIFANG XU
DB. 6127, PG. 3206

TAX LOT 47
N/F WILLIAM F. BRILL & YVONNE
DB./PG. N/A

TAX LOT 48
N/F ROBERT & CHERYL GESREGAN
DB. 2315, PG. 231

TAX LOT 49
N/F JOSHUA & LISA B. SILVERGLADE
DB. 6320, PG. 1184

TAX LOT 50
N/F LISA A. ROBBINS & K. M. MILLER
DB. 2220, PG. 500

TAX LOT 51
N/F JAMES T. COLLINS JR
DB. 1893, PG. 754

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARGARET J.
DB./PG. N/A

TAX LOT 55
N/F HARRY W. & BERTHA
DB./PG. N/A

TAX LOT 58
N/F MARY CURTIS NOROWITZ
DB. 6749, PG. 3547

COAH DEVELOPMENT (85 UNITS) TO BE PERMITTED BY OTHERS
TAX LOT 1
BLOCK 28004
N/F SHARBELL PLAINSBORO INC.

PROP. SILT FENCE

PROP. TREE PROTECTION FENCE

ARH ZONE

LIMITS OF DISTURBANCE

PROP. INLET PROTECTION

PROP. 200' WIDE EMERGENCY SPILLWAY ELEV. 112.50

PROP. SEDIMENT RISER (SEE DETAIL)

BOTTOM OF BASIN 103.50

EMERGENT WETLANDS PLANTING (SEE POND EDGE VEGETATION DETAIL)

WET POND A1
NWS: 108.50
100 YR WSE: 112.48
BOTTOM OF BASIN: 103.50

PROP. SCOUR HOLE

PROP. 5' WIDE RIP-RAP BED

10' CURB TRANSITION

WET POND A2
NWS: 108.50
100 YR WSE: 112.48
BOTTOM OF BASIN: 105.50

PROP. AERATOR (TYP.)

CONTRACTOR TO INSTALL TRENCH DRAIN AT GARAGE ENTRANCES PROVIDE FLOOR DRAIN. REFER MEP PLANS

PROPOSE LOT 2 (82,525 SF) BUILDING (23,077 SF)

4 RISERS @ 6"

PROP. 16' DEPRESSED CURB

PROP. 10' DEPRESSED CURB

PROP. STOCKPILE LOCATION
BLOCK 28003, LOT 1
DB. 6402, PG. 1822
35,000± SF (0.8036 AC)

PROP. STOCKPILE LOCATION

PROP. STABILIZED CONSTRUCTION ENTRANCE

CONTRACTOR TO MAINTAIN 2% CROSS SLOPE AND 5% RUNNING SLOPE IN SIDEWALK
R=600.00'
D =26°11'36"
CB=N43° 24' 10"E
CD=292.27'

CONTRACTOR TO MAINTAIN 2% SLOPE IN ALL DIRECTIONS IN TURNING SPACE

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 211, BLOCK 28003) CONTAINING (7,661 SF) (0.18 AC)

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 57, BLOCK 28003) CONTAINING (1,474 SF) (0.0338 AC)

10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (2,009± SF) 87 SF)

PROP. HAYBALE SEDIMENT BARRIER

AREA DEDICATED TO SOMERSET COUNTY FOR ROADWAY PURPOSES (1,980 SF) (0.05 AC)

NOTE: REFER TO "COUNTY INTERSECTION GRADING PLAN" FOR WORK WITHIN COUNTY R.O.W.

NOTE: REFER TO "COUNTY INTERSECTION GRADING PLAN" FOR 20' SCALE

WEST CURB BY OTHERS (TYP.)

MEET EXIST. DRIVEWAY FLUSH

PROP. DEDICATION TO BE OBTAINED BY OWNER OF BLOCK 28005, LOT 65 (14,139 SF)

PHUD ZONE

R-1 ZONE

HC ZONE

REO-3 ZONE

SHEET A
SHEET C

SHEET B
SHEET D

SHEET 61A
SHEET 61B

EROSION CONTROL LEGEND

- PROP. LIMIT OF DISTURBANCE LINE
- PROP. SILT FENCE LINE
- PROP. TREE PROTECTION FENCE LINE
- PROP. INLET FILTER
- PROP. HAYBALE SEDIMENT BARRIER

LIMIT OF DISTURBANCE = 1,152,172 SF. (26.45 Ac.)

SHEET INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
-60 0 30 60 120 240
(IN FEET)
1 INCH = 60 FT.

REV.	DATE	COMMENTS	BY
16	11/07/18	REV. PER FIELD CHANGES	AJW
15	09/05/18	REV. PER COUNTY COMMENTS	AJW
14	07/11/18	REV. PER COUNTY COMMENTS	AJW
13	05/23/18	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BJG
12	05/07/18	REV. PER SHEAR EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JL
11	03/27/18	REV. PER TOWNSHIP AND COUNTY COMMENTS	AJW
10	02/23/18	REV. PER TOWNSHIP ENGINEER COMMENTS	AJW/JL
9	12/04/18	REV. PER RESOLUTION COMPLIANCE	AJW/JL
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JL
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/JL
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JL
5	07/31/18	REV. PER TOWNSHIP & SRSC COMMENTS	AJW
4	07/11/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JL
3	04/16/18	REV. PER TOWNSHIP, RSC & MISC. COMMENTS	AJW/JL
2	03/19/18	REV. PER TOWNSHIP ENGINEER COMMENTS	AJW/JL
1	01/16/18	REV. PER COUNTY COMMENTS	AJW

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD — CONSTRUCTION CHECK — —

09/25/18 — DATE — DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 65; TAX MAP SHEET #50
CENTRAL JERSEY CORPORATE CENTER & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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www.dynamicec.com

JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **OVERALL SOIL EROSION & SEDIMENT CONTROL PLAN**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 56 OF 77 — Rev. #: 16

Plotted: 11/06/18 – 1:45 PM, By: bgrudin
File: P:\DESPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\0431401SSE16.dwg, ----> 56 OVERALL SOIL EROSION & SEDIMENT CONTROL PLAN

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THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY

SEE SHEET 62 OF 77 FOR SOIL EROSION NOTES & DETAILS

SHEET A
SHEET B

SHEET A
SHEET C

PROP. HAYBALE SEDIMENT BARRIER

PROP. TREE PROTECTION FENCE

LIMITS OF DISTURBANCE

PROP. INLET PROTECTION

PROP. SILT FENCE

PROP. STOCKPILE LOCATION

ARH ZONE

PMUL ZONE

PROP. 200' WIDE EMERGENCY SPILLWAY ELEV. 112.50

PROP. AERATOR (TYP.)

PROP. 10' DEPRESSED CURB

PROP. 40' CURB TRANSITION

PROP. 10' CURB TRANSITION

PROP. 5' WIDE RIP-RAP BED.

PROP. 5'x5' BOX TYPE 'B' INLET
STORM LINE #120
TC: 121.55
GRT: 121.05
INV IN (A): 116.18
INV IN (B): 111.42
INV IN (C): 116.47
INV OUT (D): 105.82

PROP. TYPE 'B' INLET
STORM LINE #211
TC: 123.52
GRT: 123.02
INV IN (30"): 118.73
INV OUT (30"):118.63

WET POND A2
HWL: 108.50
100 YR WSE: 112.48
BOTTOM OF BASIN: 105.50

PROP. TYPE 'B' INLET
STORM LINE #219A
TC: 118.50
GRT: 118.00

PROP. 6'ø STORM MH
STORM LINE #400A
RIM: 111.11
INV IN (36"): 100.82
INV OUT (36"):100.72

PROP. 6'ø STORM MH
STORM LINE #401
RIM: 103.65
INV IN (36"): 99.06
INV OUT (36"):90.60

STORM LINE #219
RIM: 118.66
INV IN (A): 105.50
INV IN (C): 113.79
INV IN (D): 105.50
INV OUT (D): 105.50

PROP. 6'ø STORM MH
STORM LINE #218A
RIM: 118.98
INV IN (36"): 105.50
INV IN (8"): 105.50
INV OUT (36"):105.50

PROP. 6'ø STORM MH
STORM LINE #204A
RIM: 128.64
INV IN (36"): 118.14
INV OUT (15"):124.63

PROP. TYPE 'B' INLET
STORM LINE #204B
TC: 127.40
GRT: 126.90
INV IN (A): 124.21
INV IN (B): 124.21
INV OUT (18"):124.11

PROP. TYPE 'B' INLET
STORM LINE #204C
TC: 128.33
GRT: 127.83
INV IN (C): 124.53
INV IN (B): 124.53
INV OUT (A): 124.43

PROP. TYPE 'B' INLET
STORM LINE #203A
TC: 136.77
GRT: 136.27
INV OUT (15"):131.27

PROP. TYPE 'B' INLET
STORM LINE #203
TC: 136.77
GRT: 136.27
INV IN (A): 130.87
INV IN (B): 130.87
INV OUT (C): 130.77

PROP. TYPE 'B' INLET
STORM LINE #204
TC: 127.40
GRT: 126.90
INV IN (A): 124.21
INV IN (B): 124.21
INV OUT (18"):124.11

PROP. TYPE 'A' INLET
STORM LINE #208A
GRT: 130.60
INV IN (8"): 124.72
INV OUT (8"): 124.62

PROP. TYPE 'B' INLET
STORM LINE #208B
GRT: 135.60
INV IN (8"): 128.36
INV OUT (8"): 128.26

PROP. TYPE 'B' INLET
STORM LINE #204B
TC: 127.40
GRT: 126.90
INV OUT (15"):124.38

PROP. TYPE 'E' INLET
STORM LINE #209A
GRT: 124.49
INV IN (A): 121.31
INV IN (B): 121.31
INV OUT (24"):121.21

PROP. TYPE 'B' INLET
STORM LINE #209
TC: 125.66
GRT: 125.16
INV IN (24"): 121.56
INV OUT (24"):121.46

PROP. TYPE 'B' INLET
STORM LINE #208
TC: 125.96
GRT: 125.46
INV IN (B): 121.76
INV IN (D): 122.43
INV OUT (C): 121.66

PROP. TYPE 'B' INLET
STORM LINE #210
TC: 123.50
GRT: 123.00
INV IN (24"): 119.28
INV IN (15"): 119.28
INV OUT (30"):119.18

PROP. TYPE 'E' INLET
STORM LINE #117
GRT: 132.77
INV IN (A): 124.53
INV IN (B): 129.71
INV OUT (C): 124.28

PROP. TYPE 'B' INLET
STORM LINE #206
TC: 135.33
GRT: 134.83
INV OUT (15"):130.79

PROP. TYPE 'B' INLET
STORM LINE #207
TC: 135.33
GRT: 134.83
INV IN (C): 130.39
INV IN (A): 128.17
INV OUT (B): 128.07

PROP. TYPE 'B' INLET
STORM LINE #120A
TC: 121.55
GRT: 121.05
INV OUT (15"):111.93

PROP. TYPE 'E' INLET
STORM LINE #118
GRT: 127.11
INV IN (15"): 120.68
INV OUT (15"):120.58

PROP. TYPE 'B' INLET
STORM LINE #115
L=2
TC: 124.57
GRT: 124.07
D =
CB=INV IN (30"): 119.32
CD=INV OUT (30"):119.22

PROP. TYPE 'B' INLET
STORM LINE #113
TC: 128.10
GRT: 127.60
INV IN (A): 123.77
INV IN (B): 122.58
INV OUT (C): 122.28

PROP. TYPE 'B' INLET
STORM LINE #114
TC: 128.16
GRT: 127.66
INV IN (30"): 121.83
INV OUT (30"):121.73

PROP. TYPE 'E' INLET
STORM LINE #112
GRT: 128.48
INV IN (15"): 123.37
INV OUT (15"):123.27

PROP. TYPE 'E' INLET
STORM LINE #111
GRT: 131.88
INV IN (15"): 127.42
INV OUT (15"):127.32

PROP. DBL TYPE 'E' INLET
STORM LINE #110
GRT: 131.77
INV IN (A): 127.36
INV IN (B): 127.36
INV OUT (C): 126.57

PROP. DBL TYPE 'E' INLET
STORM LINE #117A
GRT: 128.25
INV OUT (15"):125.29

PROP. TYPE 'E' INLET
STORM LINE #111A
GRT: 130.67
INV OUT (15"):132.99

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 211, BLOCK 28003) CONTAINING (7,661 SF) (0.18 AC)

10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (0.002 AC, 87 SF)

L=189.40'
R=630.00'
D =17°13'30"
CB=N53° 06' 34"E
CD=188.69'

TAX LOT 162
BLOCK 28003
N/F TAPESTRY AT MONTGOMERY HOA INC
DB. 6716, PG. 1058

TAX LOT 211
BLOCK 28003
N/F SHARBELL PLAINSBORO INC
DB/Pg. N/A

TAX LOT 66
BLOCK 28003
N/F KENDAL
DB. 4402, PG. 1822

TAX LOT 98

TAX LOT 99

LANE A

LANE B

LANE C

LANE D

LANE E

LANE F

LANE G

LANE H

VILLAGE DRIVE

SWEET GUM STREET

PROPOSED LOT 2 (82,525 SF)

PROPOSED 40 UNIT CONDOMINIUM BUILDING (23,077 S.F.)

CONTRACTOR TO INSTALL TRENCH DRAIN AT GARAGE ENTRANCES

PROP. FLOOR DRAIN. REFER MEP PLANS

Type 'B' Inlet
TC: 121.82
GRT: 121.74
INV(A): 112.91
INV(B): 112.66

Flared End Section
INV: 112.09

6" PVC
INV: 110.58

Sanitary Manhole
RIM: 124.50
INV(A): 115.74
INV(E): 115.64

Sanitary Manhole
RIM: 122.06
INV(A): 111.28
INV(B): 111.26

Sanitary Manhole
RIM: 114.71
INV(E): 110.45
INV(B): 110.43

Flared End Section
INV: 88.24

Type 'B' Inlet

Sanitary Manhole

Type 'B' Inlet

Cap Fnd.

Cap Fnd.

Cap Fnd.

Cap Fnd.

24" RCP

18" RCP

15" RCP

12" RCP

EROSION CONTROL LEGEND

- PROP. LIMT OF DISTURBANCE LINE
- PROP. SILT FENCE LINE
- PROP. TREE PROTECTION FENCE LINE
- PROP. INLET FILTER
- PROP. HAYBALE SEDIMENT BARRIER

LIMIT OF DISTURBANCE = 1,152,172 SF. (26.45 Ac.)

SHEET INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

Plotted: 11/26/19 – 1:46 PM, By: bgrubin
File: P:\DEDPC PROJECTS\0043 Shorbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\0431401556E16.dwg, ----> 57 SOIL EROSION & SEDIMENT CONTROL PLAN 'A'

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REV.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJW
15	09/03/19	REV. PER COUNTY COMMENTS	AJW
14	07/17/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BJG
12	05/01/19	REV. PER SPREAD EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JDS
11	03/27/19	REV. PER TOWNSHIP AND COUNTY COMMENTS	AJW/JDS
10	01/17/19	REV. PER TOWNSHIP AND COUNTY COMMENTS	AJW/JDS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/JDS
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JDS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/JDS
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JDS
5	07/17/18	REV. PER TOWNSHIP & BRICS COMMENTS	AJW
4	05/21/18	REV. PER RESOLUTION COMPLIANCE	AJW/JDS
3	04/19/18	REV. PER TOWNSHIP, BCI & BRICS COMMENTS	AJW/JDS
2	03/15/18	REV. PER COUNTY COMMENTS	AJW/JDS
1	02/15/18	REV. PER COUNTY COMMENTS	AJW/JDS
0	09/25/18	INITIAL SUBMISSION	AJW

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18
CONSTRUCTION CHECK DATE

__ __
CONSTRUCTION CHECK DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC.**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28003, LOT 66; TAX MAP SHEET #35
GEORGETOWN-FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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Ph: 732.974.0198 • Fax: 732.974.3521
8 Robbins Street, Suite 102, Toms River, New Jersey 08753
Ph: 732.974.0198 • Fax: 732.974.3521
1301 Central Expressway South, Suite 210, Allen, TX 75013
T: 972.534.2100
14521 Old Katy Road, Suite 250, Houston, TX 77079
Ph: 281.759.6400
101 Hoppe Expressway South, Barton Oaks Plaza One, Suite 300, Austin, TX 78746
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www.dynamicec.com

JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **SOIL EROSION & SEDIMENT CONTROL PLAN 'A'**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No:			CHECKED BY:
0043-14-015			JDS

SHEET No: **57** OF 77 Rev. #: 16

THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY

SEE SHEET 62 OF 77 FOR SOIL EROSION NOTES & DETAILS

PROP. SILT FENCE

PROP. SEDIMENT RISER (SEE DETAIL)

PROP. TREE PROTECTION FENCE

LIMITS OF DISTURBANCE

PROP. HAYBALE SEDIMENT BARRIER

PROP. 200' WIDE EMERGENCY SPILLWAY ELEV: 112.50

PROP. 10' DEPRESSED CURB

PROP. 10' CURB TRANSITION

PROP. 5' WIDE RIP-RAP BED.

PROP. SCOUR HOLE

PROP. 6' BOX TYPE 'B' INLET STORM LINE #218 TC: 120.54 GRT: 120.04 INV IN (A): 115.64 INV IN (B): 105.50 INV IN (D): 114.00 INV OUT (C): 105.50

PROP. OGS STORM LINE #400 GRT: 112.25 INV (3.25' WEIR): 109.50 INV (11" ORIFICE): 108.50 6" GATE VALVE: 103.50 INV OUT (36"):103.50

BOTTOM OF BASIN 103.50

PROPOSED WET POND BASIN IS TO BE UTILIZED AS A TEMPORARY EXCAVATED SEDIMENT BASIN DURING CONSTRUCTION

WET POND A1 NWC: 108.50 100 YR WSE: 112.48 BOTTOM OF BASIN: 103.50

LANDS PLANTING (SEE POND BOTTOM VEGETATION DETAIL)

PROP. 6' STORM MH STORM LINE #219 RIM: 118.66 INV IN (A): 105.50 INV IN (C): 113.71 INV IN (B): 105.50 INV OUT (D): 105.50

PROP. 6' STORM MH STORM LINE #218A RIM: 118.98 INV IN (36"): 105.50 INV IN (8"): 105.50 INV OUT (36"):105.50

PROP. 6' STORM MH STORM LINE #317 RIM: 115.41 INV IN (36"): 110.73 INV OUT (36"):106.12

PROP. 5' BOX TYPE 'B' INLET STORM LINE #316 TC: 127.50 GRT: 127.00 INV IN (36"): 118.28 INV OUT (36"):112.62

PROP. 6' STORM MH STORM LINE #401 RIM: 103.65 INV IN (36"): 99.06 INV OUT (36"):90.60

PROP. TYPE 'B' INLET STORM LINE #219A TC: 118.50 GRT: 118.00

PROP. 6' STORM MH STORM LINE #400A RIM: 111.11 INV IN (36"): 100.82 INV OUT (36"):100.72

PROP. DEDICATION TO BE OBTAINED BY OWNER OF BLOCK 28005, LOT 65 (7,070 SF) (0.16 AC)

PROP. 6' STORM MH STORM LINE #315 RIM: 127.46 INV IN (C): 120.03 INV IN (A): INV IN (B): INV OUT (D):

PROP. TYPE 'B' INLET STORM LINE #313 TC: 131.22 GRT: 130.72 INV IN (15"): 123.01 INV OUT (18"):122.72

PROP. TYPE 'B' INLET STORM LINE #315A TC: 127.71 GRT: 127.21 INV OUT (15"):124.16

PROP. TYPE 'B' INLET STORM LINE #314 TC: 131.02 GRT: 130.52 INV IN (A): 122.74 INV IN (B): 122.24 INV OUT (30"):121.52

PROP. TYPE 'B' INLET STORM LINE #312 TC: 133.25 GRT: 132.75 INV IN (15"): 124.84 INV OUT (15"):124.74

PROP. 4'ø STORM MH STORM LINE #311 RIM: 135.17 INV IN (15"): 127.53 INV OUT (15"):127.43

PROP. TYPE 'E' INLET STORM LINE #310 GRT: 138.68 INV OUT (15"):128.43

PROP. TYPE 'B' INLET STORM LINE #308 TC: 133.86

PROP. TYPE 'B' INLET STORM LINE #220 TC: 118.50 GRT: 118.00

PROP. TYPE 'B' INLET STORM LINE #219 TC: 118.50 GRT: 118.00 INV IN (A): 105.50 INV IN (C): 113.71 INV IN (B): 105.50 INV OUT (D): 105.50

PROP. TYPE 'B' INLET STORM LINE #218 TC: 120.54 GRT: 120.04 INV IN (A): 115.64 INV IN (B): 105.50 INV IN (D): 114.00 INV OUT (C): 105.50

PROP. TYPE 'B' INLET STORM LINE #204B TC: 127.40 GRT: 126.90 INV OUT (15"):124.38

PROP. TYPE 'B' INLET STORM LINE #217 TC: 130.83 GRT: 130.33 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #216 TC: 130.82 GRT: 130.32 INV IN (15"): 126.36 INV OUT (15"):126.26

PROP. TYPE 'B' INLET STORM LINE #204A TC: 128.64 GRT: 128.14 INV OUT (15"):124.63

PROP. TYPE 'B' INLET STORM LINE #204C TC: 128.33 GRT: 127.83 INV IN (C): 124.53 INV IN (B): 124.53 INV OUT (A): 124.43

PROP. TYPE 'E' INLET STORM LINE #215 GRT: 133.58 INV IN (15"): 127.79 INV OUT (15"):127.69

PROP. TYPE 'E' INLET STORM LINE #214 GRT: 141.15 INV OUT (15"):134.62

PROP. TYPE 'E' INLET STORM LINE #209A GRT: 124.49 INV IN (A): 121.31 INV IN (B): 121.31 INV OUT (24"):121.21

PROP. TYPE 'B' INLET STORM LINE #210 TC: 123.50 GRT: 123.00 INV IN (24"): 119.28 INV IN (15"): 119.28 INV OUT (30"):119.18

PROP. TYPE 'B' INLET STORM LINE #209 TC: 125.66 GRT: 125.16 INV IN (24"): 121.56 INV OUT (24"):121.46

PROP. TYPE 'A' INLET STORM LINE #208A GRT: 130.60 INV IN (8"): 124.72 INV OUT (8"): 124.62

PROP. TYPE 'B' INLET STORM LINE #204 TC: 127.40 GRT: 126.90 INV IN (A): 124.21 INV IN (B): 124.21 INV OUT (18"):124.11

PROP. TYPE 'B' INLET STORM LINE #208 TC: 125.96 GRT: 125.46 INV IN (B): 121.76 INV IN (D): 122.43 INV OUT (C): 121.66

PROP. TYPE 'E' INLET STORM LINE #117 GRT: 132.77 INV IN (A): 124.53 INV IN (B): 129.71 INV OUT (C): 124.28

PROP. TYPE 'B' INLET STORM LINE #206 TC: 135.33 GRT: 134.83 INV OUT (15"):130.79

PROP. TYPE 'A' INLET STORM LINE #208B GRT: 135.60 INV IN (8"): 128.36 INV OUT (8"): 128.26

PROP. TYPE 'B' INLET STORM LINE #207 TC: 135.33 GRT: 134.83 INV IN (C): 130.39 INV IN (A): 128.17 INV OUT (B): 128.07

PROP. TYPE 'B' INLET STORM LINE #203 TC: 136.77 GRT: 136.27 INV IN (A): 130.87 INV IN (B): 130.87 INV OUT (C): 130.77

PROP. TYPE 'B' INLET STORM LINE #203A TC: 136.77 GRT: 136.27 INV OUT (15"):131.27

PROP. TYPE 'E' INLET STORM LINE #205 TC: 130.83 GRT: 130.33 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #205A TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206A TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206B TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206C TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206D TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206E TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206F TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206G TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206H TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206I TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206J TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206K TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206L TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206M TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206N TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206O TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206P TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206Q TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206R TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206S TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206T TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206U TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206V TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206W TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206X TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206Y TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206Z TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AA TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AB TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AC TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AD TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AE TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AF TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AG TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AH TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AI TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AJ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AK TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AL TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AM TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AN TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AO TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AP TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AQ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AR TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AS TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AT TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AU TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AV TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AW TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AX TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AY TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206AZ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BA TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BB TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BC TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BD TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BE TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BF TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BG TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BH TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BI TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BJ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BK TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BL TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BM TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BN TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BO TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BP TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BQ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BR TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BS TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BT TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BU TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BV TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BW TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BX TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BY TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206BZ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CA TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CB TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CC TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CD TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CE TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CF TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CG TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CH TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CI TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CJ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CK TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CL TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CM TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CN TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CO TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CP TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CQ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CR TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CS TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CT TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CU TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CV TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CW TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CX TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CY TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206CZ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DA TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DB TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DC TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DD TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DE TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DF TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DG TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DH TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DI TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DJ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DK TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DL TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DM TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DN TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DO TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DP TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DQ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DR TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DS TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DT TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DU TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DV TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DW TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DX TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DY TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206DZ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EA TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EB TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EC TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206ED TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EE TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EF TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EG TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EH TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EI TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EJ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EK TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EL TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EM TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EN TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EO TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EP TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EQ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206ER TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206ES TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206ET TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EU TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EV TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EW TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EX TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EY TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206EZ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FA TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FB TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FC TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FD TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FE TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FF TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FG TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FH TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FI TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FJ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FK TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FL TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FM TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FN TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FO TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FP TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FQ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FR TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FS TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FT TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FU TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FV TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FW TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FX TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FY TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206FZ TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206GA TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206GB TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206GC TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206GD TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206GE TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM LINE #206GF TC: 130.32 GRT: 129.82 INV IN (15"): 125.07 INV OUT (15"):121.09

PROP. TYPE 'B' INLET STORM

THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY

SEE SHEET 62 OF 77 FOR SOIL EROSION NOTES & DETAILS

SHEET A
SHEET C

PROP. STABILIZED CONSTRUCTION ENTRANCE

PROP. STOCKPILE LOCATION

PROP. SILT FENCE

LIMITS OF DISTURBANCE

PROP. TREE PROTECTION FENCE

PROP. INLET PROTECTION

PHASE II ZONE

PHII/D ZONE

R-1 ZONE

EAST HARTWICK DRIVE
(25 MPH)

LANE A

LANE H

LANE I

LANE J

LANE

VILLAGE DRIVE
(60' ROW WIDTH PER TAX MAP)

GEORGETOWN FRAN
(A.K.A. COUNTY RO
(VARIABLE ROW WIDTH

CONTRACTOR TO MAINTAIN 2% CROSS SLOPE AND 5% RUNNING SLOPE IN SIDEWALK

CONTRACTOR TO MAINTAIN 2% SLOPE IN ALL DIRECTIONS IN TURNING SPACE

NOTE:
REFER TO "COUNTY INTERSECTION GRADING PLAN" FOR WORK WITHIN COUNTY R.O.W.

10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (0.002 AC, 87 SF)

TAX LOT 66
BLOCK 28005
N/F KTR CAPITAL, LLC
DB. 6402, PG. 1922

TAX LOT 48
N/F ROBERT & CHERYL GESREGAN
DB. 2315, PG. 231

TAX LOT 49
N/F JOSHUA & LISA B. SILVERGLADE
DB. 6320, PG. 1184

TAX LOT 50
N/F LISA A. ROBBINS & K. M. MILLER
DB. 2220, PG. 500

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT-53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARG
DB./PG. N/A

TAX LOT 47
N/F WILLIAM F. BRILL & YVONNE C.
DB./PG. N/A

1,350.00' (DR1)

SHEET C
SHEET D

EROSION CONTROL LEGEND

- PROP. LIMIT OF DISTURBANCE LINE
- PROP. SILT FENCE LINE
- PROP. TREE PROTECTION FENCE LINE
- PROP. INLET FILTER
- PROP. HAYBALE SEDIMENT BARRIER

LIMIT OF DISTURBANCE = 1,152,172 SF. (26.45 Ac.)

SHEET INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

N
W E
S

REV.	DATE	COMMENTS
16	11/01/19	REV. PER FIELD CHANGES
15	09/05/19	REV. PER COUNTY COMMENTS
14	07/17/19	REV. PER COUNTY COMMENTS
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS
12	05/01/19	REV. PER SPEAS EASEMENT CHANGES AND COUNTY COMMENTS
11	03/27/19	REV. PER TOWNSHIP COMMENTS
10	02/27/19	REV. PER TOWNSHIP AND COUNTY COMMENTS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE
8	11/21/18	REV. PER COUNTY COMMENTS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS
5	07/31/18	REV. PER TOWNSHIP & SRSC COMMENTS
4	06/25/18	REV. PER RESOLUTION COMPLIANCE
3	04/19/18	REV. PER TOWNSHIP, RSD & SRSC COMMENTS
2	03/26/18	REV. PER COUNTY COMMENTS
1	02/26/18	REV. PER COUNTY COMMENTS
REV.	DATE	COMMENTS

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18
CONSTRUCTION CHECK DATE

_____ _____
CONSTRUCTION CHECK DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC.
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 66; TAX MAP SHEET #59
GEORGETOWN-FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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www.dynamicec.com

JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **SOIL EROSION & SEDIMENT CONTROL PLAN C**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No:			CHECKED BY:
0043-14-015			JDS

SHEET No: **59** OF 77
Rev. #: 16

Plotted: 11/05/19 – 1:48 PM, By: bgaudin
File: P:\DESPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\DA314015SE16.dwg, ---> 59 SOIL EROSION & SEDIMENT CONTROL PLAN C

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THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY

SEE SHEET 62 OF 77 FOR SOIL EROSION NOTES & DETAILS

SHEET B
SHEET D

PROP. STOCKPILE LOCATION

PROP. STOCKPILE LOCATION

BLOCK 28005
N/F KT CAPITAL, LLC
DB. 6492, PG. 1822
SF: 26,076 AC.

PROP. HAYBALE SEDIMENT BARRIER

PROP. TREE PROTECTION FENCE

PROP. SILT FENCE

LIMITS OF DISTURBANCE

PROP. INLET PROTECTION

PROP. TREE PROTECTION FENCE

PROP. HAYBALE SEDIMENT BARRIER

PROP. HAYBALE SEDIMENT BARRIER

PROP. TYPE 'E' INLET
STORM LINE #116
GRT: 140.28
INV OUT (15"):134.49

PROP. TYPE 'A' INLET
STORM LINE #208C
GRT: 142.50
INV OUT (8"): 132.31

PROP. TYPE 'B' INLET
STORM LINE #202
TC: 146.00
GRT: 145.50
INV IN (15"): 138.78
INV OUT (15"):138.68

PROP. TYPE 'E' INLET
STORM LINE #101
GRT: 146.85
INV IN (15"): 142.92
INV OUT (15"):142.82

PROP. TYPE 'B' INLET
STORM LINE #205
TC: 145.80
GRT: 145.30
INV OUT (15"):135.97

PROP. TYPE 'E' INLET
STORM LINE #201
GRT: 146.35
INV IN (15"): 140.06
INV OUT (15"):139.96

PROP. TYPE 'B' INLET
STORM LINE #203A
TC: 136.77
GRT: 136.27
INV OUT (15"):131.27

PROP. TYPE 'E' INLET
STORM LINE #214
GRT: 141.15
INV OUT (15"):134.62

PROP. TYPE 'B' INLET
STORM LINE #306
TC: 144.70
GRT: 144.20
INV OUT (15"):138.75

PROP. TYPE 'E' INLET
STORM LINE #310
GRT: 138.68
INV OUT (15"):128.43

PROP. TYPE 'B' INLET
STORM LINE #307
TC: 137.01
GRT: 136.51
INV IN (18"): 129.35
INV OUT (18"):129.25

PROP. TYPE 'B' INLET
STORM LINE #308
TC: 133.86
GRT: 133.36
INV IN (18"): 128.29
INV OUT (18"):127.19

PROP. TYPE 'B' INLET
STORM LINE #309
TC: 133.92
GRT: 133.42
INV IN (A): 126.49
INV IN (B): 126.49
INV OUT (C): 126.39

PROP. 4'ø STORM MH
STORM LINE #303
RIM: 137.67
INV IN (A): 134.40
INV IN (B): 133.01
INV OUT (C): 129.00

PROP. 4'ø STORM MH
STORM LINE #305
RIM: 144.69
INV IN (C): 137.23
INV IN (B): 137.77
INV OUT (C): 135.53

PROP. 4'ø STORM MH
STORM LINE #304
INV IN (B): 141.98
INV OUT (15"): 140.29

PROP. 4'ø STORM MH
STORM LINE #301
RIM: 143.26
INV IN (15"): 136.86
INV OUT (15"):136.86

PROP. TYPE 'B' INLET
STORM LINE #303A
TC: 140.44
GRT: 139.94
INV OUT (15"):134.51

PROP. TYPE 'B' INLET
STORM LINE #302
TC: 138.17
GRT: 137.67
INV IN (15"): 135.07
INV OUT (15"):134.97

PROP. TYPE 'B' INLET
STORM LINE #300
TC: 142.87
GRT: 142.37
INV IN (15"): 138.40
INV OUT (15"):138.30

PROP. TYPE 'B' INLET
STORM LINE #300A
TC: 143.00
GRT: 142.50
INV OUT (15"):138.70

PROP. DBL TYPE 'E' INLET
STORM LINE #100
GRT: 151.14
INV OUT (15"):147.35

PROP. TYPE 'E' INLET
STORM LINE #200A
GRT: 151.04
INV OUT (15"):147.02

PROP. TYPE 'E' INLET
STORM LINE #200
GRT: 150.80
INV IN (15"): 144.36
INV OUT (15"):144.26

PROP. DBL TYPE 'E' INLET
STORM LINE #304A
GRT: 148.00
INV OUT (15"):145.20

PROP. DBL TYPE 'E' INLET
STORM LINE #304B
GRT: 144.80
INV OUT (15"):140.86

PROP. 10' CURB TRANSITION TO FULL HEIGHT

PROP. 125 LF COUNTY CONC. CURB EXTENSION

PROP. 2" CURB REVEAL

PROP. 2" ASPHALT REPAIR STRIP

PROP. 125 LF COUNTY CONC. CURB EXTENSION

PROP. 10' CURB TRANSITION TO FULL HEIGHT

PROP. 2" CURB REVEAL

PROP. 2" ASPHALT REPAIR STRIP

PROP. DEDICATION TO OWNER OF BLOCK 28005 (14,330 SF) (0.33 AC)

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 57, BLOCK 28003) CONTAINING (1,474 SF) (0.0338 AC)

MEET EXIST. DRIVEWAY FLUSH

MEET CURB BY OTHERS (TYP.)

MEET EXIST. TC

DEP. CURB

AREA DEDICATED TO SOMERSET COUNTY FOR ROADWAY PURPOSES (1,980 SF) (0.05 AC)

LANE E

LANE F

LANE I

LANE L

LANE M

TAMWORTH DRIVE (25 MPH)

BRECKNELL WAY (25 MPH)

HARTWICK DRIVE (25 MPH)

GEORGETOWN FRANKLIN TURNPIKE
(A.K.A. COUNTY ROUTE 518)
(VARIABLE ROW WIDTH PER TAX MAP)

PMUD ZONE

R-1 ZONE

HC ZONE

REO-3 ZONE

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARGARET J.
DB./PG. N/A

TAX LOT 55
N/F HARRY W. & BERTHA ZOLL
DB./PG. N/A

TAX LOT 56
N/F MIGUEL A. SANTIZO
DB. 2180, PG. 436

TAX LOT 57
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

TAX LOT 58
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

1 Story Dwelling

Shed

Rebar Fnd.

I.P. Fnd.

Mon. Fnd.

SHEET C
SHEET D

EROSION CONTROL LEGEND

- PROP. LIMIT OF DISTURBANCE LINE
- PROP. SILT FENCE LINE
- PROP. TREE PROTECTION FENCE LINE
- PROP. INLET FILTER
- PROP. HAYBALE SEDIMENT BARRIER

LIMIT OF DISTURBANCE = 1,152,172 SF. (26.45 Ac.)

SHEET INDEX MAP

NOT TO SCALE

A | B
C | D

GRAPHIC SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

REV.	DATE	COMMENTS	BY
16	11/05/19	REV. PER FIELD CHANGES	AJW
15	09/05/19	REV. PER COUNTY COMMENTS	AJW
14	07/17/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BSC
12	05/07/19	REV. PER SPEAR EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JL
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW
10	02/27/19	REV. PER TOWNSHIP AND COUNTY COMMENTS	AJW/JL
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/JL
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JL
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/JL
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JL
5	07/17/18	REV. PER TOWNSHIP & BRSC COMMENTS	AJW
4	06/19/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JL
3	04/19/18	REV. PER TOWNSHIP, BCD & BRSC COMMENTS	AJW/JL
2	03/15/18	REV. PER COUNTY COMMENTS	AJW/JL
1	02/15/18	REV. PER TOWNSHIP ENGINEER COMMENTS	AJW/JL
REV.	DATE	COMMENTS	BY

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18
CONSTRUCTION CHECK DATE

_ _
CONSTRUCTION CHECK DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC.
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 65; TAX MAP SHEET #50
GEORGETOWN FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **SOIL EROSION & SEDIMENT CONTROL PLAN D**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 60 OF 77 | Rev. #: 16

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Plotted: 11/05/19 – 1:49 PM, By: hgrubin
File: P:\DESPC PROJECTS\0043 Shortell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\043140150SE16.dwg, ----> 60 SOIL EROSION & SEDIMENT CONTROL PLAN D

Soil De-compaction and Testing Requirements

Soil Compaction Testing Requirements

1. Subgrade soils **prior to the application of topsoil** (see permanent seeding and stabilization notes for topsoil requirements) shall be free of excessive compaction to a depth of 6.0 inches to enhance the establishment of permanent vegetative cover.

2. Areas of the site which are subject to compaction testing and/or mitigation are **graphically denoted** on the certified soil erosion control plan.

3. **Compaction testing locations** are denoted on the plan. A copy of the plan or portion of the plan shall be used to mark locations of tests, and attached to the compaction mitigation verification form, available from the local soil conservation district. This form must be filled-out and submitted prior to receiving a certificate of compliance from the district.

4. In the event that testing indicates compaction in excess of the maximum thresholds indicated for the simplified testing methods (see details below), the contractor/owner shall have the option to perform either (1) compaction mitigation over the entire mitigation area denoted on the plan (excluding exempt areas), or (2) perform additional, more detailed testing to establish the limits of excessive compaction whereupon only the excessively compacted areas would require compaction mitigation. Additional detailed testing shall be performed by a trained, licensed professional.

Compaction Testing Methods

A. Probing Wire Test (see detail)
B. Hand-held Penetrometer Test (see detail)
C. Tube Bulk Density Test (licensed professional engineer required
D. Nuclear Density Test (licensed professional engineer required)

Note: Additional testing methods which conform to ASTM standards and specifications, and which produce a dry weight, soil bulk density measurement may be allowed subject to District approval.

Soil compaction testing is not required if/when subsoil compaction remediation (scarification/tillage (6" minimum depth) or similar) is proposed as part of the sequence of construction.

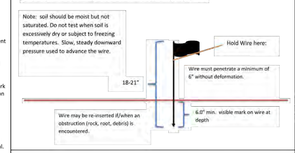
Procedures for Soil Compaction Mitigation

Procedures shall be used to mitigate excessive soil compaction **prior to placement of topsoil** and establishment of permanent vegetative cover.

Restoration of compacted soils shall be through deep scarification/tillage (6" minimum depth) where there is no danger to underground utilities (cables, irrigation systems, etc.). In the alternative, another method as specified by a New Jersey Licensed Professional Engineer maybe substituted subject to District Approval.

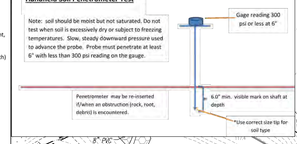
Probing Wire Test- 15.5 ga steel wire (survey flag)

Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures. Slow, steady downward pressure used to advance the wire.



Handheld Soil Penetrometer Test

Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures. Slow, steady downward pressure used to advance the probe. Probe must penetrate at least 6" with less than 300 psi reading on the gauge.



THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY

SEE SHEET 62 OF 77 FOR SOIL EROSION NOTES & DETAILS

PROP. TREE PROTECTION FENCE
ARH ZONE
PHUD ZONE
LIMITS OF DISTURBANCE
TAX LOT 162 BLOCK 28003 N/F TAPESTRY AT MONTGOMERY HOA INC. DB. 6716, PG. 1058
TAX LOT 161
TAX LOT 65.01 N/F VILLAGE SHOPPER III, LLC DB. 6882, PG. 3765
PROP. DEDICATION TO BE OBTAINED BY OWNER OF BLOCK 28005, LOT 65 (7,070 SF) (0.16 AC)
PROPOSED LOT 2 (82,525 SF)
PROPOSED 40 UNIT CONDOMINIUM BUILDING (23,077 SF)
FF: 131.00 GR: 130.37
VILLAGE DRIVE (50' ROW WIDTH PER TAX MAP)
HARTWICK DRIVE (50' ROW WIDTH PER TAX MAP)
EAST HARTWICK DRIVE (25 MPH)
LANE A
LANE B
LANE C
LANE D
LANE E
LANE F
LANE G
TAMWORTH DR.
TAX LOT 211 BLOCK 28003 N/F SHARBELL PLAINSBORO INC DB./PG. N/A
PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 211, BLOCK 28003) CONTAINING (7,661 SF) (0.18 AC)
10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (2,009 SQ. FT.)
TAX LOT 1 BLOCK 28005 N/F KT CAPITAL, LLC DB. 6402, PG. 1822
L=214.90' R=630.00' D =19°32'30" CB=N53° 47' 45"E CD=213.88'
L=295.24' R=600.00' D =28°11'36" CB=N30° 24' 42"E CD=292.23'
COAH DEVELOPMENT (95 UNITS) TO BE PERMITTED BY OTHERS
TAX LOT 2004 N/F SHARBELL PLAINSBORO INC. DB./PG. N/A
TAX LOT 46 N/F CHIH-YUAN SHIH & CUIFANG XU DB. 6127, PG. 3206
TAX LOT 47 N/F WILLIAM F. BRILL & YVONNE DB./PG. N/A
TAX LOT 48 N/F ROBERT & CHERYL GESREGAN DB. 2315, PG. 231
TAX LOT 49 N/F JOSHUA & LISA B. SILVERGLADE DB. 6320, PG. 1184
TAX LOT 50 N/F LISA A. ROBBINS & K. M. MILLER DB. 2220, PG. 500
TAX LOT 51 N/F JAMES L. COLLINS JR DB. 1893, PG. 754
TAX LOT 52 N/F JASON LANTVET DB. 6629, PG. 395
TAX LOT 53 N/F ADRIANUS VAN BEVERWIJK DB. 2075, PG. 172
TAX LOT 54 N/F COSMO DI FALCO & MARGARET J. DB./PG. N/A
TAX LOT 55 N/F HARRY W. & BERTHA DB./PG. N/A
TAX LOT 58 N/F MARY-CURTIS HOROWITZ DB. 6749, PG. 3547
R-1 ZONE
HC ZONE
REO-3 ZONE
LIMITS OF DISTURBANCE
PROP. TREE PROTECTION FENCE
PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 57, BLOCK 28003) CONTAINING (1,474 SF) (0.0338 AC)
AREA DEDICATED TO SOMERSET COUNTY FOR ROADWAY PURPOSES (1,980 SF) (0.05 AC)
GEORGETOWN FRANKLIN TURNPIKE (A.K.A. COUNTY ROUTE 518) (VARIABLE ROW WIDTH PER TAX MAP)
SHEET A
SHEET B
SHEET C
SHEET D
SHEET B1
SHEET D1
SHEET B2
SHEET D2

SOIL COMPACTION MITIGATION NOTES

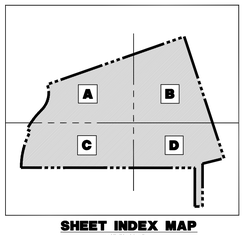
1. PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER MAY BE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.
3. SOIL COMPACTION TESTING IS NOT REQUIRED IF/WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE 6" MINIMUM DEPTH) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.

LEGEND

SOIL COMPACTION TESTING AREAS

RECOMMENDED SOIL COMPACTION TEST LOCATION (APPROX. 1 PER 0.5 ACRE)

LIMIT OF DISTURBANCE = 1,152,172 SF. (26.45 Ac.)



SHEET INDEX MAP
NOT TO SCALE

GRAPHIC SCALE
-60 0 30 60 120 240
(IN FEET)
1 INCH = 60 FT.

REV.	DATE	COMMENTS	BY
16	11/05/19	REV. PER FIELD CHANGES	AJW
15	09/05/19	REV. PER COUNTY COMMENTS	AJW
14	07/11/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BJG
12	05/07/19	REV. PER SPREAD EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JL
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5	07/31/18	REV. PER TOWNSHIP & SRTC COMMENTS	AJW
4	06/27/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JL
3	04/19/18	REV. PER TOWNSHIP, RSD & MISC. COMMENTS	AJW/JL
2	03/16/18	REV. PER TOWNSHIP ENGINEER COMMENTS	AJW/JL
1	02/16/18	REV. PER TOWNSHIP ENGINEER COMMENTS	AJW/JL
0	01/16/18	ORIGINAL SUBMISSION	AJW

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DOCUMENT: **FINAL FOR SEWER DESIGN**
COMMENTS:
DJD — 09/25/18 — CONSTRUCTION CHECK — DATE
— — CONSTRUCTION CHECK — DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 65; TAX MAP SHEET #50
SOUTH SIDE OF GEORGETOWN FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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14521 Old Katy Road, Suite 200, Houston, TX 77079
Ph: 281.789.6400
901 Mopac Expressway South, Barton Oaks Plaza One, Suite 300, Austin, TX 78746
Ph: 512.961.8060
www.dynamicec.com

JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **SOIL MANAGEMENT & PREPARATION PLAN**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No:			CHECKED BY:
0043-14-015			JDS

SHEET No: 61 OF 77 — Rev. #: 16

Plotted: 11/05/19 – 1:50 PM By: bgrubin
File: P:\DEDPC PROJECTS\0043 Shorthell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\043140155E16.dwg, ---> 61 SOIL MANAGEMENT & PREPARATION PLAN

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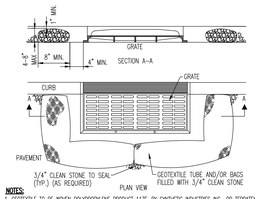
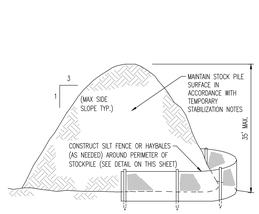


NOTES:

1. GEOTEXTILE TO BE WOVEN POLYPROPYLENE PRODUCT 1179, BY SYNTHETIC INDUSTRIES INC., OR TERRATEX SC, BY WEBTEC INC., OR APPROVED EQUAL.
2. 3/4" CLEAN STONE CORE SHALL BE COMPLETELY CONTAINED WITHIN GEOTEXTILE. SEAMS SHALL BE SEWN OR CLOSED BY SUITABLE MECHANICAL MEANS TO PREVENT LEAKAGE OF STONE.
3. WHERE NO CURB IS PRESENT, BARRIER SHALL COMPLETELY ENCIRCLE THE DRAIN INLET.
4. INLET GRATE OPENING IS TO BE KEPT CLEAR OF OBSTRUCTIONS AT ALL TIMES.
5. THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.
6. OTHER METHODS THAT ACCOMPLISH THE PURPOSE OF STORM SEWER INLET PROTECTION MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
7. INSPECTIONS SHALL BE FREQUENT. MAINTENANCE, REPAIR, AND REPLACEMENT SHALL BE MADE PROMPTLY, AS NEEDED. THE BARRIER SHALL BE REMOVED WHEN THE AREA DRAINING TOWARDS THE INLET HAS BEEN STABILIZED.

INLET FILTER DETAIL

NOT TO SCALE



TEMPORARY STOCKPILE DETAIL

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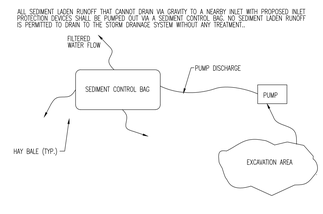


NOTES:

1. CONTRACTOR SHALL COPY WITH ALL APPLICABLE SOIL CONSERVATION AND NJDEP REQUIREMENTS REGARDING DISCHARGE OF EFFLUENT.
2. BAG MUST BE LOCATED AWAY FROM RECEIVING WATERS AND/OR CONSTRUCTION ACTIVITIES.
3. BAGS MUST BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS. BAGS MAY NOT BE REUSED.
4. BAG MAY BE SURROUNDED BY STACKED HAY BALES AND FILTER FABRIC TO ENHANCE SEDIMENT CAPTURE.

N.J. S.C.D. SEDIMENT CONTROL BAG FOR DEWATERING

NOT TO SCALE

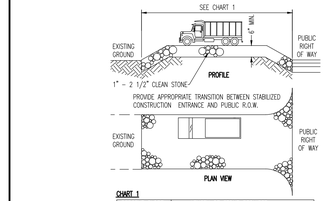


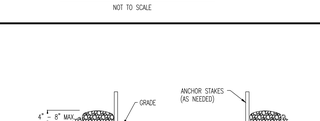
CHART 1

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2% TO 5%	100 FT	200 FT
>5%	ENTIRE ENTRANCE STABILIZED WITH FABC BASE COURSE (1)	

(1) AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

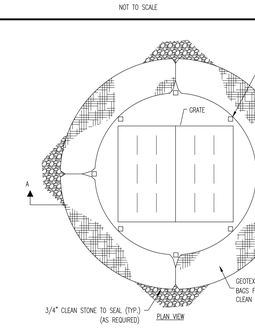


NOTES:

1. GEOTEXTILE TO BE WOVEN POLYPROPYLENE PRODUCT 1177, BY SYNTHETIC INDUSTRIES INC., OR TERRATEX SC, BY WEBTEC INC., OR APPROVED EQUAL.
2. 3/4" CLEAN STONE CORE SHALL BE COMPLETELY CONTAINED WITHIN GEOTEXTILE. SEAMS SHALL BE SEWN OR CLOSED BY SUITABLE MECHANICAL MEANS TO PREVENT LEAKAGE OF STONE.
3. ANCHOR STAKES OF WOOD OR METAL SHALL BE INSTALLED WHERE REQUIRED BY FIELD CONDITIONS TO PREVENT MOVEMENT OF BARRIER.
4. BARRIER SHALL COMPLETELY ENCIRCLE THE DRAIN INLET.
5. GRATE OPENING IS TO BE KEPT CLEAR OF OBSTRUCTIONS AT ALL TIMES.
6. THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM. WHERE SLOPE REQUIRES, AN EARTHEN BERM SHALL BE INSTALLED TO DIRECT STORM FLOW INTO THE INLET, BUT NOT OVER THE CURB.
7. OTHER METHODS THAT ACCOMPLISH THE PURPOSE OF STORM SEWER INLET PROTECTION MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
8. INSPECTIONS SHALL BE FREQUENT. MAINTENANCE, REPAIR, AND REPLACEMENT SHALL BE MADE PROMPTLY, AS NEEDED. THE BARRIER SHALL BE REMOVED WHEN THE AREA DRAINING TOWARDS THE INLET HAS BEEN STABILIZED.

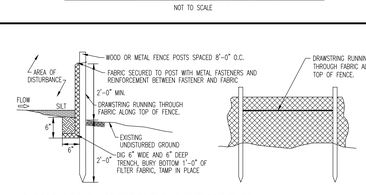
TYPE 'E' AND YARD INLET FILTER DETAIL

NOT TO SCALE



PREFORMED SCOUR HOLE DETAIL

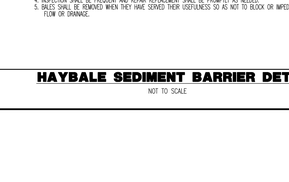
NOT TO SCALE



1. PLACE SILT FENCE AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. THE SLOPE OF THE LAND FOR AT LEAST 50 FEET ADJACENT TO ANY SILT FENCE SHALL NOT EXCEED 5 PERCENT
3. SILT FENCE SHALL BE INSTALLED SO KNEE CANNOT BYPASS THE FENCE AROUND THE ENDS.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE AS PROMPTLY AS POSSIBLE.
5. SILT FENCE SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE INSTRUCTED BY THE TOWNSHIP ENGINEER OR SOIL CONSERVATION DISTRICT.
6. THE BARRIER SHALL BE REMOVED WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD A MIN. DIAMETER THICKNESS OF 1 1/2 INCHES.
8. A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
9. A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE GROUND. FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

SILT FENCE DETAIL

NOT TO SCALE

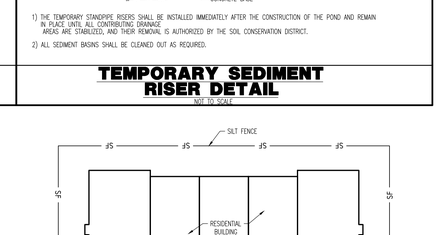


NOTES:

1. BALES SHALL BE PLACED AT THE TOP OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

HAYBALE SEDIMENT BARRIER DETAIL

NOT TO SCALE

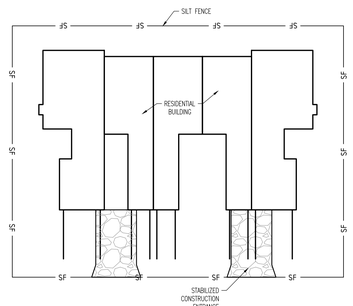


1) THE TEMPORARY STANDPIPE RISERS SHALL BE INSTALLED IMMEDIATELY AFTER THE CONSTRUCTION OF THE POND AND REMAIN IN PLACE UNTIL ALL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED, AND THEIR REMOVAL IS AUTHORIZED BY THE SOIL CONSERVATION DISTRICT.

2) ALL SEDIMENT BASINS SHALL BE CLEANED OUT AS REQUIRED.

TEMPORARY SEDIMENT RISER DETAIL

NOT TO SCALE



TYPICAL LOT CONSTRUCTION DETAIL

NOT TO SCALE

SEQUENCE OF CONSTRUCTION:

CONSTRUCTION SEQUENCE

EXACT TIMING FOR DEVELOPMENT OF THIS PROJECT IS NOT KNOWN AT THIS TIME. HOWEVER, IT IS ANTICIPATED THAT CONSTRUCTION WILL COMMENCE IN SUMMER 2018 AND CONTINUOUSLY ONCE APPROVALS ARE SECURED. ITEMS AND DURATIONS OF CONSTRUCTION WILL OCCUR APPROXIMATELY AS FOLLOWS:

PHASE 1/1A		DURATION
1.	TEMPORARY SOIL EROSION FACILITIES	IMMEDIATELY
2.	CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES AT RESEARCH ROAD	IMMEDIATELY
3.	DEMOLITION AND REMOVAL OF EXISTING OFFICE BUILDING AND ASSOCIATED IMPROVEMENTS	IMMEDIATELY
4.	INSTALL SILT FENCE FOR OVERALL PHASE	IMMEDIATELY
5.	ROUGH AND CLEAR GRADING	2 WEEKS
6.	STRIP AND STOCKPILE TOPSOIL	2 WEEKS
7.	TEMPORARY SEEDING	IMMEDIATELY
8.	INSTALLATION OF STORM SEWER AND CONSTRUCTION AND STABILIZATION OF TEMPORARY SEDIMENT BASINS A1 AND A2.	2 WEEKS
9.	SANITARY SEWER INSTALLATION	2 WEEKS
10.	INLET PROTECTION	IMMEDIATELY
11.	CURB INSTALLATION	2 WEEKS
12.	ROAD SUB-BASE FOR PORTION OF HARTWICK DRIVE, INTERMEDIATE LOOP ROAD, ROAD C, RESEARCH ROAD AND SEVERAL LANES	2 WEEKS
13.	MAINTENANCE OF TEMPORARY EROSION CONTROL MEASURES	CONTINUOUSLY
14.	CONSTRUCTION OF THE TOWNHOMES AND CONDOMINIUM	CONTINUOUSLY
15.	SIDEWALK AND SIGNAGE INSTALLATION	3 WEEKS
16.	FINAL SEEDING AND LANDSCAPING	2 WEEKS
17.	FINAL PAVEMENT COURSE	1 WEEK

PHASE 2/3		DURATION
1.	MAINTENANCE OF TEMPORARY EROSION CONTROL MEASURES AND SEDIMENT BASIN	CONTINUOUSLY
2.	INSTALL SILT FENCE	IMMEDIATELY
3.	ROUGH AND CLEAR GRADING	2 WEEKS
4.	STRIP AND STOCKPILE TOPSOIL	2 WEEKS
5.	TEMPORARY SEEDING	IMMEDIATELY
6.	STORM SEWER INSTALLATION	2 WEEKS
7.	SANITARY SEWER INSTALLATION	2 WEEKS
8.	INLET PROTECTION	IMMEDIATELY
9.	CURB INSTALLATION	2 WEEKS
10.	ROAD SUB-BASE FOR PORTION OF HARTWICK DRIVE, ROAD A, ROAD B, ROAD D AND SEVERAL LANES	2 WEEKS
11.	CONSTRUCTION OF THE TOWNHOMES	CONTINUOUSLY
12.	SIDEWALK AND SIGNAGE INSTALLATION	3 WEEKS
13.	FINAL SEEDING AND LANDSCAPING	2 WEEKS
14.	FINAL PAVEMENT COURSE	1 WEEK
15.	ONCE ALL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED, REMOVE TEMPORARY RISER/ DEPOSITED SEDIMENT AND CONVERT SEDIMENT BASIN TO WET PONDS.	

STANDARD FOR STABILIZATION WITH MULCH ONLY

1. SITE PREPARATION
   A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.
   B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
2. PROTECTIVE MATERIALS
   A. UNROTTED SMALL-GRAIN STRAW, AT 2.0 TO 2.5 TONS PER ACRE, IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, I.E. THE SOIL CANNOT BE SEEN BELOW THE MULCH.
   B. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.
   C. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.
   D. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC, MAY BE USED.
   E. WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE FLOWING WATER COULD WASH THEM INTO AN INLET AND PLUG IT.
   F. GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.
3. MULCH ANCHORING – SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS IN ACCORDANCE WITH THE STATE STANDARDS, DEPENDING UPON THE SIZE OF THE AREA AND STEEPNESS OF SLOPES.
   A. PEG AND TWINE
   B. MULCH NETTINGS
   C. CRIMPER MULCH ANCHORING COULTER TOOL
   D. LIQUID MULCH-BINDERS

TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

METHODS AND MATERIALS

1. SITE PREPARATION
   A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
   B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
   C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
2. SEEDBED PREPARATION
   A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
   B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED.
   C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
3. SEEDING
   A. SELECT SEED FROM TABLE BELOW.

TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH.

SEED SELECTION'S	SEEDING RATE (pounds)		OPTIMUM SEEDING DATE Based on Plant Hardiness Zone*			OPTIMUM SEED DEPTH* (inches)
	Per Acre	Per 1000 Sq. Ft.	ZONE 5b, 6a	ZONE 6b	ZONE 7a, b	
COOL SEASON GRASSES						
1. Perennial ryegrass	100	1.0	3/15-6/1 8/1-9/15	3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	0.5
2. Spring oats	86	2.0	3/15-6/1 8/1-9/15	3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	1.0
3. Winter Barley	96	2.2	8/1-9/15	8/15-10/1	8/15-10/15	1.0
4. Annual ryegrass	100	1.0	3/15-6/1 8/1-9/15	3/15-6/1 8/1-9/15	2/15-5/1 8/15-10/15	0.5
5. Winter Cereal Rye	112	2.8	8/1 - 11/1	9/1 - 11/15	8/1 - 12/15	1.0
WARM SEASON GRASSES						
6. Pearl millet	20	0.5	6/1-8/1	5/15-8/15	5/1-8/1	1.0
7. Millet (Germen or Hungarian)	30	0.7	6/1-8/1	5/15-8/15	5/1-8/1	1.0

1 SEEDING RATE FOR WARM SEASON GRASS, SELECTIONS 5 – 7 SHALL BE ADJUSTED TO REFLECT THE AMOUNT OF PURE LINE SEED (PLS) AS DETERMINED BY A GERMINATION TEST RESULT. NO ADJUSTMENT IS REQUIRED FOR COOL SEASON GRASSES.
2 MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE OR SEEDED AND AREA CAN BE IRRIGATED.
3 PLANT HARDINESS ZONE
4 TWICE THE DEPTH FOR SANDY SOILS

   B. CONVENTIONAL SEEDING – APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON SANDY OR GRAVELLY SOILS.
   C. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH MAY NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.
   D. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

PERMANENT SEEDING

1. TOPSOIL TO BE PLACED TO A DEPTH OF 5 INCHES ON EXPOSED SOILS UPON COMPLETION OF FINAL GRADING.
2. SEED IS TO BE UNIFORMLY APPLIED TO THE NORMAL DEPTH OF 1/4 INCH TO 1/2 INCH (EXCEPT HYDRO SEEDING). ZONE 6b SEED MIXTURE 15, AS SHOWN ON PAGE 4-11 IN THE SOIL EROSION STANDARDS. THE SEEDING RATE SHALL BE:

SEED MIXTURE	PLANTING RATE LBS PER ACRE	LBS PER 1000 SF
HARD FESCUE	120	2.7
PERENNIAL RYEGRASS	30	0.7
KENTUCKY BLUEGRASS (BLEND)	40	0.9

* OPTIMAL SEEDING DATES: 3/1 – 4/30 AND 8/15 – 10/15

3. MULCHING WILL BE ACCOMPLISHED PER THE ABOVE TEMPORARY SEEDING SPECIFICATION.

* MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE OR SOIL CAN BE IRRIGATED.

SOIL PREPARATION

SUITABLE EQUIPMENT WILL BE USED TO PREPARE A REASONABLE, UNIFORM, FINE SEED BED TO A MINIMUM DEPTH OF 4 INCHES.

LIMESTONE AND FERTILIZER ARE TO BE APPLIED ACCORDING TO THE ACCEPTED SOILS TEST RESULTS. IN LIEU OF TEST RESULTS, PULVERIZED DOLOMITIC LIMESTONE EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDES, IS TO BE APPLIED AT A RATE OF 90 lbs/1,000 SQ. FT. (2 TONS/Ac.) AND 10-20-10 FERTILIZER WILL BE APPLIED AT A RATE OF 11 lbs/1,000 SQ. FT. (500 lbs/Ac.) OR EQUIVALENT. SUITABLE EQUIPMENT WILL BE USED TO PREPARE A REASONABLE, UNIFORM, FINE SEED BED TO A MINIMUM DEPTH OF 4 INCHES. THE FOLLOWING TABLE IS A GENERAL GUIDELINE FOR LIMESTONE APPLICATION RATES:

SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.
CLAY, CLAY LOAM, & HIGHLY ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

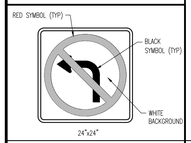
WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT.

MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERSEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE

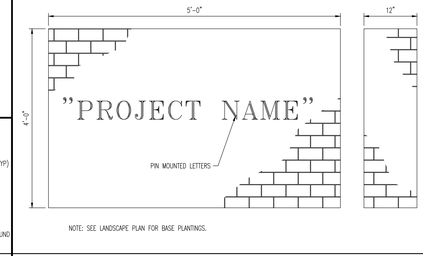
SOMERSET-UNION SOIL CONSERVATION DISTRICT SOIL EROSION & SEDIMENT CONTROL NOTES:

1. THE SOMERSET–UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING 48 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.
2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 30 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE., ACCORDING TO NJ STATE STANDARDS
4. PERMANENT VEGETATION SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH WILL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED
5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NJ STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
6. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN 15 DAYS OF PRELIMINARY GRADING.
7. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING ALL CRITICAL AREAS SUBJECT TO EROSION (I.E.: STEEP SLOPES, ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO THE NJ STATE STANDARDS.
8. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E.: SLOPES GREATER THAT 3:1)
9. TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION OF A 50'X30'X6"THD OF 1 1/2" OR 2" STONE, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.
10. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND MAKE IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
11. IN THAT NJCA 4:24-39 ET SEQ., REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES, ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS, WILL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
12. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
13. ANY CHANGES TO THE CERTIFIED

MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERSEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE

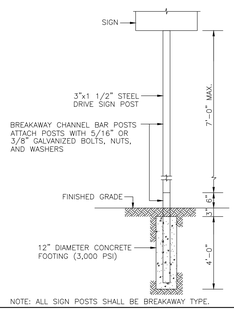


R3-2 SIGN DETAIL
NOT TO SCALE



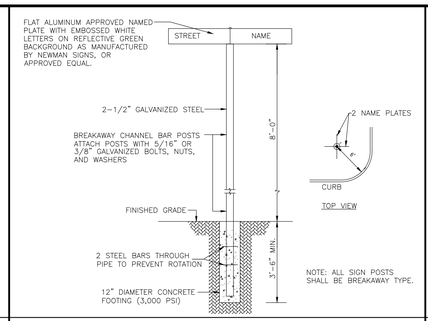
NOTE: SEE LANDSCAPE PLAN FOR BASE PLANTINGS.

MASONRY FREESTANDING SIGN DETAIL
NOT TO SCALE



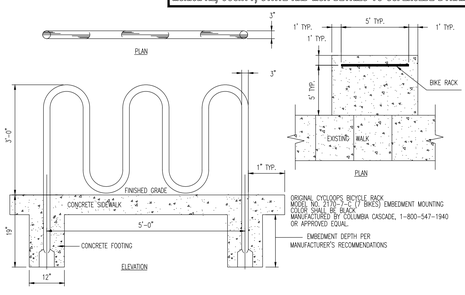
NOTE: ALL SIGN POSTS SHALL BE BREAKAWAY TYPE.

SIGN POST DETAIL
NOT TO SCALE



NOTE: ALL SIGN POSTS SHALL BE BREAKAWAY TYPE.

STREET SIGN DETAIL
NOT TO SCALE



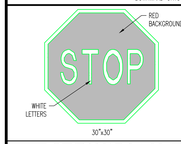
'U' BICYCLE RACK DETAIL
NOT TO SCALE

SIGNAGE TABLE

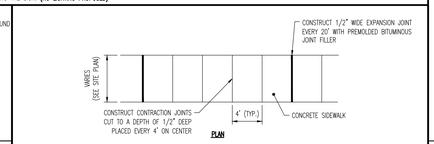
SIGN	REQUIREMENTS		PROPOSED	
FREESTANDING	NUMBER OF SIGNS:		NUMBER OF SIGNS:	
	RESEARCH ROAD/INTERMEDIATE LOOP:	TWO (2)	RESEARCH ROAD/INTERMEDIATE LOOP:	TWO (2)
	INNER LOOP (ROAD A):	ONE (1)	INNER LOOP (ROAD A):	ONE (1)
	MULTI-FAMILY ENTRANCE DRIVE:	ONE (1)	MULTI-FAMILY ENTRANCE DRIVE:	TWO (2) (V)
	MAXIMUM SIGN AREA:	30 SF	MAXIMUM SIGN AREA:	20 SF (EACH)
	MAXIMUM SIGN HEIGHT:	8 FT	MAXIMUM SIGN HEIGHT:	4 FT
	MINIMUM SIGN SETBACK:		MINIMUM SIGN SETBACK:	
	FROM STREET RIGHT-OF-WAY LINE:	5 FT	FROM STREET RIGHT-OF-WAY LINE:	5 FT
	FROM ANY OTHER PROPERTY LINE:	25 FT	FROM ANY OTHER PROPERTY LINE:	> 25 FT

N/S: NO STANDARD (V): VARIANCE (E): EXISTING NON-CONFORMANCE

(1) FREESTANDING OPEN SPACE IDENTIFICATION SIGNS AND INFORMAL SIGNS SHALL BE PERMITTED ON EACH CORNER OF OPEN SPACE AREAS.
(2) SIGNS ARE NOT PERMITTED WITHIN SIGHT TRIANGLES.
(3) THE FREESTANDING SIGNS MAY BE LIGHTED, PROVIDED THE LIGHTING IS EXTERIOR TO THE SIGN, LOW WATTAGE AND IS LOCATED AT THE TOP OF THE SIGN FOCUSED DOWNWARD ONTO THE SIGN. **(NO LIGHTING PROPOSED)**

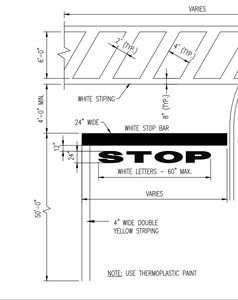


R1-1 SIGN DETAIL
NOT TO SCALE



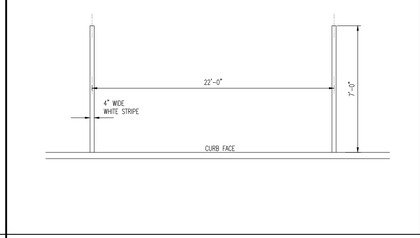
NOTE:
1. MAX. CROSS SLOPE 1/4" PER FOOT PITCHED TOWARDS ROADWAY.
2. PROVIDE 1/2" WIDE PREMOLDED BITUMINOUS EXPANSION JOINT AT 20' INTERVALS.
3. REFER TO SITE PLAN FOR SIDEWALK WIDTH.
4. PROVIDE A BROOM FINISH TO PROVIDE A SLIP RESISTANT WEARING SURFACE IN ACCORDANCE WITH A.D.A. REGULATIONS. FINISH THE EDGES OF THE GROOVES USING AN EDGING TOOL WITH A 1/4" RADIUS.
5. SIDEWALKS SHALL BE 6" THICK THROUGH DRIVEWAYS/VEHICULAR TRAFFIC WAYS.

SIDEWALK DETAIL
NOT TO SCALE

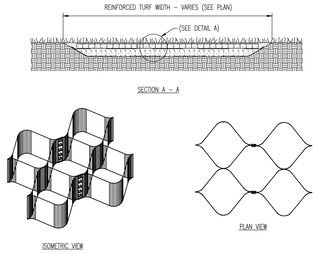


NOTE: USE THERMOPLASTIC PAINT

CONTROLLED INTERSECTION STRIPING AND SIGNAGE DETAIL
NOT TO SCALE



PARKING STALL STRIPING DETAIL
NOT TO SCALE

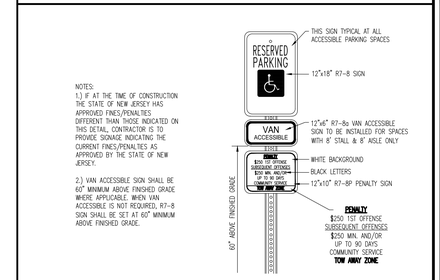


NOTE: OR AN APPROVED EQUAL.

TYPICAL GRASS PAVER BASIN ACCESS DETAIL
NOT TO SCALE

NOTE: ARROWS AND WORDS CAN BE ARRANGED IN OTHER COMBINATIONS THAN THOSE ILLUSTRATED HERE TO ACHIEVE DESIRED RESULT. ALL PAINT TO BE THERMOPLASTIC.

PAINTED MARKING DETAILS
NOT TO SCALE



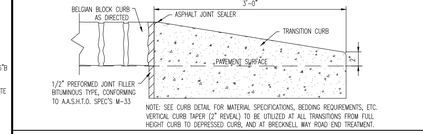
ADA PARKING SIGN W/ VAN ACCESSIBLE SIGN
NOT TO SCALE

R7-1B SIGN DETAIL
NOT TO SCALE

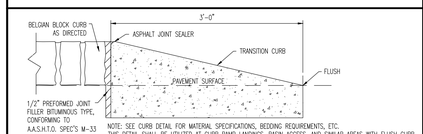
R7-1B SIGN DETAIL
NOT TO SCALE

Proposed Sign Legend		
Sign	Width	Height
Autograph Dr	36"	12"
Blackline Way	48"	12"
Sweetbriar Dr	42"	12"
Tattersalls Dr	42"	12"
Bell Harbeck Dr	54"	12"
Courtyard Junction PNE	60"	24"

D3-1 SIGN DETAIL
NOT TO SCALE



VERTICAL CURB TAPER TO 2" REVEAL DETAIL
NOT TO SCALE



VERTICAL CURB TAPER TO FLUSH DETAIL
NOT TO SCALE

NOTES:
1. CONCRETE TO TEST 4500 POUNDS PER SQUARE INCH MINIMUM ON 28 DAY COMPRESSIVE TEST.
2. A HALF INCH EXPANSION JOINT OF A NON EXTRUDABLE, FIBROUS, BITUMASTIC MATERIAL SHALL BE PLACED ON 16 FOOT CENTERS MAXIMUM.
3. TRANSVERSE JOINTS SHALL BE PLACED AT 4'-0" ON CENTER.

CONCRETE RIBBON CURB DETAIL
NOT TO SCALE

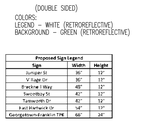
NOTES:
1. ALL PAVEMENT SECTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2007.
2. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO INSPECT AND TEST SUBGRADE SOILS. CONTRACTOR SHALL CONTACT DYNAMIC EARTH, LLC. AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF CONSTRUCTION TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
3. SUBGRADE SOILS SHALL BE APPROVED BY DYNAMIC EARTH, LLC. APPROVED NATURAL SOILS SHALL BE COMPACTED AND PROOFROLLED WITH A LOADED TANDEM AXLE TRUCK TO A FIRM AND UNYIELDING CONDITION. UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL OR STABILIZED AS DIRECTED BY DYNAMIC EARTH, LLC. ANY STRUCTURAL FILL AT OR BELOW PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM-D1557.
4. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTION DESCRIPTION.

TOWNHOME DRIVEWAY/CONDO PARKING LOT SECTION DETAIL
NOT TO SCALE

NOTES:
1. THIS SPECIFICATION IS FOR VILLAGE DRIVE, BRECKNELL WAY AND TAMWORTH DRIVE.
2. ALL PAVEMENT SECTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2007.
3. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO INSPECT AND TEST SUBGRADE SOILS. CONTRACTOR SHALL CONTACT DYNAMIC EARTH, LLC. AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF CONSTRUCTION TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
4. SUBGRADE SOILS SHALL BE APPROVED BY DYNAMIC EARTH, LLC. AND THE TOWNSHIP ENGINEER. APPROVED NATURAL SOILS SHALL BE COMPACTED AND PROOFROLLED WITH A LOADED TANDEM AXLE TRUCK TO A FIRM AND UNYIELDING CONDITION. UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL OR STABILIZED AS DIRECTED BY DYNAMIC EARTH, LLC. ANY STRUCTURAL FILL AT OR BELOW PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM-D1557.
5. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTION DESCRIPTION.

PUBLIC ROADWAY PAVEMENT SECTION DETAIL
NOT TO SCALE

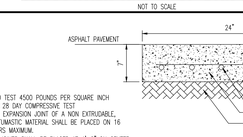
HANDRAIL AT A.D.A ACCESSIBLE RAMP DETAIL
NOT TO SCALE



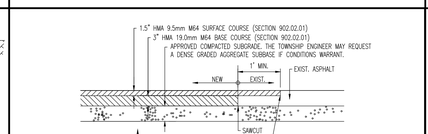
R1-6a SIGN DETAIL
NOT TO SCALE

RESERVED FOR HANDICAP PARKING SIGN DETAIL
NOT TO SCALE

R5-1 SIGN DETAIL
NOT TO SCALE

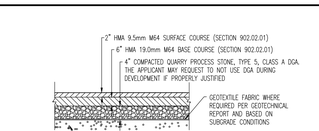


CONCRETE SIDEWALK 4" THICK DETAIL
NOT TO SCALE



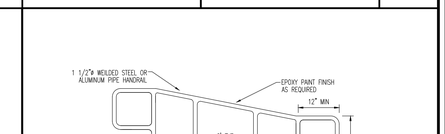
NOTES:
1. THIS SPECIFICATION IS FOR JUNIPER STREET, SWEETBAY STREET & EAST HARTWICK DRIVE AND ALL RESIDENTIAL LANES.
2. ALL PAVEMENT SECTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2007.
3. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO INSPECT AND TEST SUBGRADE SOILS. CONTRACTOR SHALL CONTACT DYNAMIC EARTH, LLC. AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF CONSTRUCTION TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
4. SUBGRADE SOILS SHALL BE APPROVED BY DYNAMIC EARTH, LLC. APPROVED NATURAL SOILS SHALL BE COMPACTED AND PROOFROLLED WITH A LOADED TANDEM AXLE TRUCK TO A FIRM AND UNYIELDING CONDITION. UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL OR STABILIZED AS DIRECTED BY DYNAMIC EARTH, LLC. ANY STRUCTURAL FILL AT OR BELOW PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM-D1557.
5. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTION DESCRIPTION.

PRIVATE ROADWAY/LANE PAVEMENT SECTION DETAIL
NOT TO SCALE

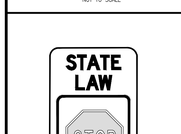


NOTES:
1. SIDEWALK/ PATIO AREAS WHICH WILL ONLY BE USED FOR PEDESTRIAN TRAFFIC SHALL BE MINIMUM OF 4" THICK CONCRETE.
2. CROSSWALKS ACROSS DRIVEWAY AND CIRCULATION AISLES WHICH WILL RECEIVE A VEHICULAR TRAFFIC SHOULD BE A MINIMUM OF 6" THICK CONCRETE WITH REINFORCING MESH.

SCORED CONCRETE SIDEWALK DETAIL
NOT TO SCALE

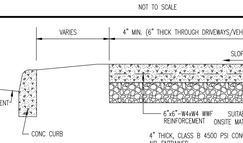


NOTES:
1. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION SHALL BE 1:12. THE MAXIMUM RISE FOR ANY RUN SHALL BE 30 IN (760MM).
2. THE MINIMUM CLEAR WIDTH OF A RAMP SHALL BE 36IN (915MM).
3. RAMPS SHALL HAVE LEVEL LANDINGS AT BOTTOM AND TOP OF EACH RAMP AND EACH RAMP RUN. LANDINGS SHALL HAVE THE FOLLOWING FEATURES:
   1. THE LANDING SHALL BE AT LEAST AS WIDE AS THE RAMP RUN LEADING TO IT.
   2. THE LANDING LENGTH SHALL BE A MINIMUM OF 60IN (1525MM) CLEAR.
   3. IF RAMPS CHANGE DIRECTION AT LANDINGS, THE MINIMUM LANDING SIZE SHALL BE 60IN BY 60IN (1525MM BY 1526MM).
4. HANDRAILS SHALL BE PROVIDED ALONG BOTH SIDES OF RAMP SEGMENTS. THE INSIDE HANDRAIL ON SWITCHBACK OR DOGLEG RAMPS SHALL ALWAYS BE CONTINUOUS.
5. IF HANDRAILS ARE NOT CONTINUOUS, THEY SHALL EXTEND AT LEAST 12IN (305MM) BEYOND THE TOP AND BOTTOM OF THE RAMP SEGMENT AND SHALL BE PARALLEL WITH THE FLOOR OR GROUND SURFACE.
6. THE CLEAR SPACE BETWEEN THE HANDRAIL AND THE WALL SHALL BE 1-1/2IN
7. GRIPPING SURFACES SHALL BE CONTINUOUS.
8. ENDS OF HANDRAILS SHALL BE EITHER ROUNDED OR RETURNED SMOOTHLY TO FLOOR, WALL OR POST.
9. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.



TRAFFIC SIGNS
NOT TO SCALE

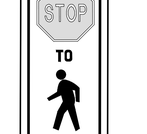
R6-1R SIGN DETAIL
NOT TO SCALE



R6-1L SIGN DETAIL
NOT TO SCALE

NOTES:
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
3. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED, (6% WITHIN 1% TOLERANCE), CONFORMING TO ASTM C260.
4. REINFORCING STEEL BARS SHALL BE A MINIMUM ASTM A615, GRADE 60, AND SHALL BE FIELD WIRED IN PLACE.
5. ALL FRAMEWORK, AND PLACEMENT OF CONCRETE SHALL COMPLY WITH GOOD CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH ALL LOCAL GOVERNING CODES AND REGULATIONS, AS WELL AS THE ACI AND UNIFORM BUILDING CODE.
6. EXPANSION JOINTS 1/2" WIDE OF PREMOLDED BITUMINOUS MATERIALS SHALL BE INSTALLED.

CONCRETE PAD DETAIL
NOT TO SCALE



W11-2 SIGN DETAIL
NOT TO SCALE

REV.	DATE	COMMENTS
16	11/01/19	REV. PER FIELD CHANGES
15	08/05/19	REV. PER COUNTY COMMENTS
14	07/17/19	REV. PER COUNTY COMMENTS
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS
12	05/07/19	REV. PER SHEAR EASEMENT CHANGES AND COUNTY COMMENTS
11	03/27/19	REV. PER TOWNSHIP COMMENTS
10	02/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE
8	11/21/18	REV. PER COUNTY COMMENTS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE
6	08/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS
5	07/31/18	REV. PER TOWNSHIP & BRSC COMMENTS
4	06/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS
3	04/19/18	REV. PER TOWNSHIP, BCA & BRSC COMMENTS
REV.	DATE	COMMENTS

COMMENTS: **FINAL FOR SEWER DESIGN**

CONSTRUCTION CHECK: — DATE: —

CONSTRUCTION CHECK: DJD DATE: 09/25/18

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK: 28005, LOT: 65 TAX MAP SHEET #50
1600 ROUTE 206 & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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245 Main Street, Suite 110, Chester, New Jersey 07930
Ph: 908.879.9229 • Fax: 908.879.0222
1904 Main Street, Lake Como, New Jersey 07719
Ph: 732.974.0198 • Fax: 732.974.3521
8 Robbins Street, Suite 102, Toms River, New Jersey 08753
Ph: 732.974.0198 • Fax: 732.974.3521
1301 Central Expressway South, Suite 210, Allen, TX 75013
T: 972.534.2100
14521 Old Katy Road, Suite 250, Houston, TX 77079
Ph: 281.759.4400
901 Mopac Expressway South, Barton Oaks Plaza One, Suite 300, Austin, TX 78746
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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **CONSTRUCTION DETAILS**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 63 OF 77 | Rev. #: 16

Plotted: 11/06/19 - 1:51 PM, By: bgrubin
File: P:\DESPC PROJECTS\0043 Shorbell Development\14-015 Research Rd & Georgetown - Franklin TPKE\dwg\Site Plans\043140155D16.dwg, ----> 63 CONSTRUCTION DETAILS

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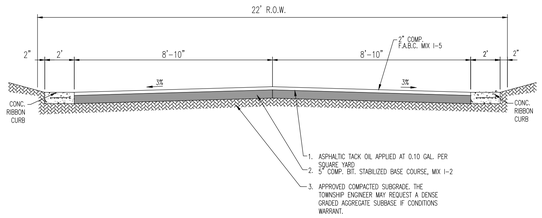
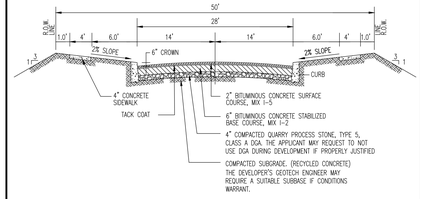
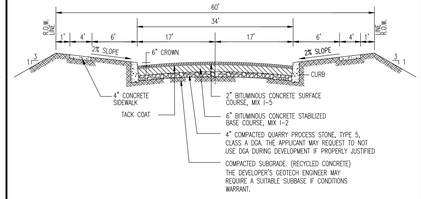


TYPICAL RESIDENTIAL LANE CROSS-SECTION DETAIL
NOT TO SCALE



TAMWORTH DRIVE CROSS SECTION DETAIL
NOT TO SCALE



VILLAGE DRIVE CROSS SECTION DETAIL
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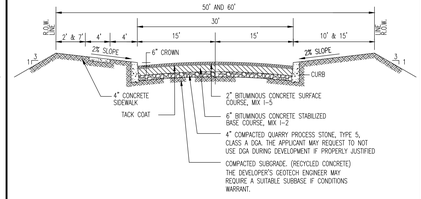

BRECKNELL WAY CROSS SECTION DETAIL
NOT TO SCALE

16	11/01/19	REV. PER FIELD CHANGES	AJW	AJW	BJC	AJW/TJS
15	09/03/19	REV. PER COUNTY COMMENTS	AJW	AJW	BJC	AJW/TJS
14	07/17/19	REV. PER COUNTY COMMENTS	AJW	AJW	BJC	AJW/TJS
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	AJW	AJW	BJC	AJW/TJS
12	05/07/19	REV. PER SHEAS EASEMENT CHANGES AND COUNTY COMMENTS	AJW	AJW	BJC	AJW/TJS
11	03/27/19	REV. PER COUNTY COMMENTS	AJW	AJW	BJC	AJW/TJS
10	02/27/19	REV. PER TOWNSHIP ENGINEER AND COUNTY COMMENTS	AJW	AJW	BJC	AJW/TJS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW	AJW	BJC	AJW/TJS
8	11/21/18	REV. PER COUNTY COMMENTS	AJW	AJW	BJC	AJW/TJS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW	AJW	BJC	AJW/TJS
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW	AJW	BJC	AJW/TJS
5	07/17/18	REV. PER TOWNSHIP & BRCC COMMENTS	AJW	AJW	BJC	AJW/TJS
4	06/19/18	REV. PER COUNTY COMMENTS	AJW	AJW	BJC	AJW/TJS
3	04/19/18	REV. PER TOWNSHIP, SCD & BRCC COMMENTS	AJW	AJW	BJC	AJW/TJS
REV.	DATE	COMMENTS	DRN	CHK	APP	BY

COMMENTS: **FINAL FOR SEWER DESIGN**

CONSTRUCTION CHECK — DATE —

CONSTRUCTION CHECK — DATE 09/25/18

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 6.05 TAX MAP SHEET #53
604 ROUTE 206 & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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1301 Central Expressway South, Suite 210, Allen, TX 75013 Ph: 214.383.1240
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101 Wizpro Expressway South, Barton Oaks Plaza One, Suite 300, Austin, TX 78746 Ph: 512.761.6500
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TITLE: **CONSTRUCTION DETAILS**

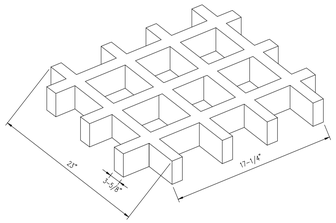
SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

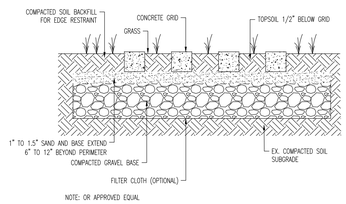
SHEET No: **64** OF 77 — Rev. #: 16

Physical Requirements

Comprehensive Strength Net Area Min. psi (MPa)		Water Absorption Max., % by Dry Weight		Net Area Min., %	Web Thickness Inches (mm)	
Avg. of 3 Units	Individual Unit	Avg. of 3 Units	Individual Unit		Min.[a]	Avg.[b]
5,000 (35)	4,500 (31)	7	10	50	1.00(25)	1.25(32)

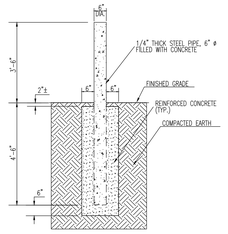
[a] Measured at the thinnest point
[b] Average of measurements along the height of the web



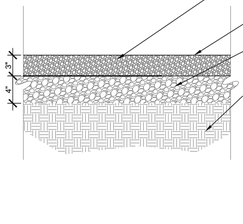


NOTE: OR APPROVED EQUAL

GRASSTONE CONCRETE GRID PAVEMENT DETAIL
NOT TO SCALE



STEEL BOLLARD DETAIL
NOT TO SCALE



NOTES:
1. CRUSHED STONE AGGREGATE SCREENINGS AND STABILIZER BINDER ADDITIVE SUPPLIED BY:

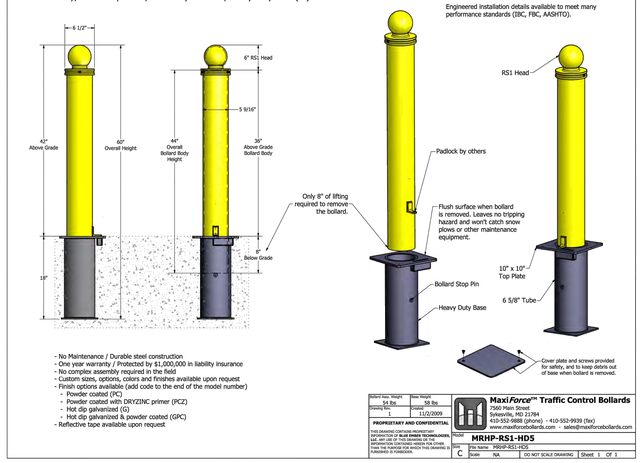
   GREENPRO MATERIALS
   BOUND BROOK, NJ 08805
   908-647-0159
   WWW.GREENPROMATERIALS.COM

2. CRUSHED STONE AGGREGATE SCREENINGS AND STABILIZER BINDER ADDITIVE TO BE PRE MIXED BY GREENPRO MATERIALS PRIOR TO DELIVERY ON SITE.

STABILIZED STONE SCREENINGS DETAIL
NOT TO SCALE

MaxiForce™ Removable Bollard

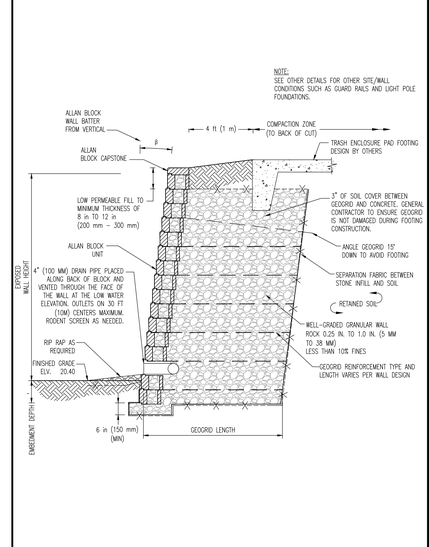
HD Round Body, Padlock Operated, Round Style 1 Head, Heavy Duty Base (5")



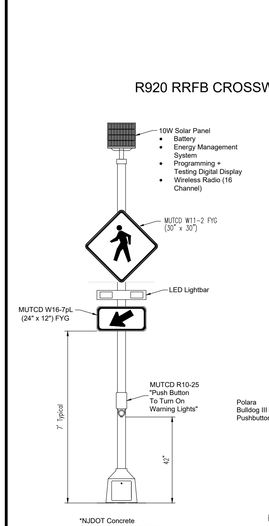
- No Maintenance / Durable steel construction
- One year warranty / Protected by $1,000,000 in liability insurance
- No complex assembly required in the field
- Custom sizes, options, colors and finishes available upon request
- Finish options available (add code to the end of the model number)
  - Powder coated (PC)
  - Powder coated with DRYZINC primer (PCZ)
  - Hot dip galvanized (G)
  - Hot dip galvanized & powder coated (GPC)
- Reflective tape available upon request

Bollard Appx. Weight: 54 lbs	Base Weight: 58 lbs	**MaxiForce™ Traffic Control Bollards**	
Drawing No.: 1	Created: 11/2/2009	7560 Main Street, Stratford, NJ 08084	
PROPRIETARY AND CONFIDENTIAL		610-552-9600 (phone) - 410-552-9939 (fax)	
THIS DRAWING CONTAINS PROPRIETARY INFORMATION OF BLUE ERMIS TECHNOLOGIES, INC. AND IS CONFIDENTIAL IN NATURE. DISTRIBUTION OF THIS DRAWING OUTSIDE OF THE COMPANY IS PROHIBITED UNLESS AUTHORIZED IN WRITING.		www.maxiforcebollards.com - sales@maxiforcebollards.com	
		Model: **MRHP-RS1-HDS**	
		Size: C	Name: MRHP-RS1-HDS
		Scale: NA	DO NOT SCALE DRAWING | Sheet 1 OF 1

DROP DOWN BOLLARD DETAIL
NOT TO SCALE



RETAINING WALL NORTH/ TRASH ENCLOSURE FOUNDATION DETAIL
NOT TO SCALE



1. RRFB FLASH RATE SHALL BE PROGRAMMED PER FEDERAL HIGHWAY ADMINISTRATION (FHWA) INTERIM APPROVAL 21, DATED MARCH 20, 2018, OR ANY SUBSEQUENT FHWA RRFB APPROVAL AT THE TIME OF CONSTRUCTION. AT THE TIME OF THE PREPARATION OF THESE PLANS, THE BELOW ARE THE REQUIRED FLASHING REQUIREMENTS. THE BELOW REQUIREMENTS, OR SUPERSEDING REQUIREMENTS AS PUBLISHED BY FHWA SHALL BE ADHERED TO.

BEACON FLASHING REQUIREMENTS:

a. WHEN ACTUATED, THE TWO YELLOW INDICATIONS IN EACH RRFB UNIT SHALL FLASH IN A RAPIDLY FLASHING SEQUENCE.

b. AS A SPECIFIC EXCEPTION TO THE REQUIREMENTS FOR THE FLASH RATE OF BEACONS PROVIDED IN PARAGRAPH 3 OF SECTION 4L.01, RRFBS SHALL USE A MUCH FASTER FLASH RATE AND SHALL PROVIDE 75 FLASHING SEQUENCES PER MINUTE, EXCEPT AS PROVIDED IN CONDITION 5F BELOW, DURING EACH 800-MILLISECOND FLASHING SEQUENCE, THE LEFT AND RIGHT RRFB INDICATIONS SHALL OPERATE USING THE FOLLOWING SEQUENCE:

THE RRFB INDICATION ON THE LEFT-HAND SIDE SHALL BE ILLUMINATED FOR APPROXIMATELY 50 MILLISECONDS.
BOTH RRFB INDICATIONS SHALL BE DARK FOR APPROXIMATELY 50 MILLISECONDS.

THE RRFB INDICATION ON THE RIGHT-HAND SIDE SHALL BE ILLUMINATED FOR APPROXIMATELY 50 MILLISECONDS.
BOTH RRFB INDICATIONS SHALL BE DARK FOR APPROXIMATELY 50 MILLISECONDS.

THE RRFB INDICATION ON THE LEFT-HAND SIDE SHALL BE ILLUMINATED FOR APPROXIMATELY 50 MILLISECONDS.
BOTH RRFB INDICATIONS SHALL BE DARK FOR APPROXIMATELY 50 MILLISECONDS.

THE RRFB INDICATION ON THE RIGHT-HAND SIDE SHALL BE ILLUMINATED FOR APPROXIMATELY 50 MILLISECONDS.
BOTH RRFB INDICATIONS SHALL BE DARK FOR APPROXIMATELY 50 MILLISECONDS.

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BOTH RRFB INDICATIONS SHALL BE DARK FOR APPROXIMATELY 50 MILLISECONDS.

BOTH RRFB INDICATIONS SHALL BE ILLUMINATED FOR APPROXIMATELY 50 MILLISECONDS.
BOTH RRFB INDICATIONS SHALL BE DARK FOR APPROXIMATELY 250 MILLISECONDS.

c. THE FLASH RATE OF EACH INDIVIDUAL RRFB INDICATION, AS APPLIED OVER THE FULL FLASHING SEQUENCE, SHALL NOT BE BETWEEN 5 AND 30 FLASHES PER SECOND TO AVOID FREQUENCIES THAT MIGHT CAUSE SEIZURES.

d. THE LIGHT INTENSITY OF THE YELLOW INDICATIONS DURING DAYTIME CONDITIONS SHALL MEET THE MINIMUM SPECIFICATIONS FOR CLASS 1 YELLOW PEAK LUMINOUS INTENSITY IN THE SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) STANDARD J595 (DIRECTIONAL FLASHING OPTICAL WARNING DEVICES FOR AUTHORIZED EMERGENCY, MAINTENANCE, AND SERVICE VEHICLES) DATED JANUARY 2005.

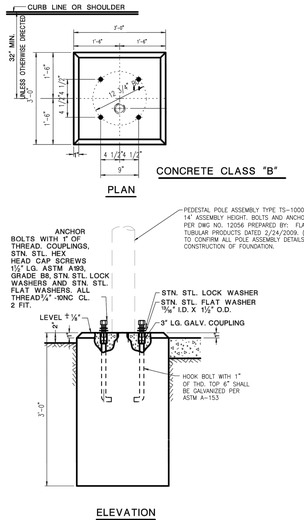
e. TO MINIMIZE EXCESSIVE GLARE DURING NIGHTTIME CONDITIONS, AN AUTOMATIC SIGNAL DIMMING DEVICE SHOULD BE USED TO REDUCE THE BRILLIANCE OF THE RRFB INDICATIONS DURING NIGHTTIME CONDITIONS.

f. EXISTING RRFB UNITS THAT USE THE FLASHING SEQUENCE THAT WAS SPECIFIED IN THE INTERIM APPROVAL 11 MEMORANDUM AND A SUBSEQUENT INTERPRETATION (THE RRFB INDICATION ON THE LEFT-HAND SIDE EMITS TWO SLOW PULSES OF LIGHT AFTER WHICH THE RRFB INDICATION ON THE RIGHT-HAND SIDE EMITS FOUR RAPID PULSES OF LIGHT FOLLOWED BY ONE LONG PULSE OF LIGHT) SHOULD BE REPROGRAMMED TO THE FLASH PATTERN SPECIFIED ABOVE IN CONDITION 5B AS PART OF A SYSTEMATIC UPGRADING PROCESS, SUCH AS WHEN THE UNITS ARE SERVICED OR WHEN THE EXISTING SIGNS ARE REPLACED.

2. ALL FOUR (4) PROPOSED RRFB UNITS ALONG VILLAGE DRIVE SHALL OPERATE IN SYNC.

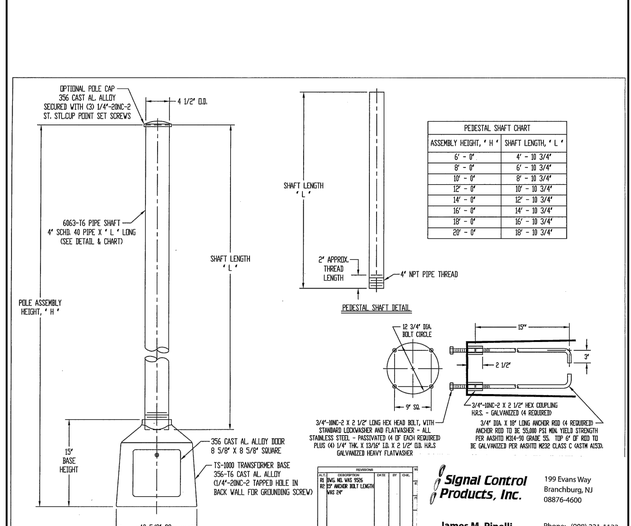
SIGNAL CONTROL PRODUCTS, INC.
199 EVANS WAY BRANCHBURG, NJ 08876
Tel 908-231-1133 Fax 908-707-0333

PEDESTRIAN SIGNAL DETAIL
NOT TO SCALE



CONCRETE NOTES
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4" (TO WITHIN A TOLERANCE OF 1").
3. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED, 6% (WITHIN 1% TOLERANCE), CONFORMING TO ASTM C260.
4. REINFORCING STEEL BARS SHALL BE A MINIMUM ASTM A615, GRADE 60, AND SHALL BE FIELD WIRED IN PLACE.
5. ALL FORMWORK AND PLACEMENT OF CONCRETE SHALL COMPLY WITH GOOD CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH ALL LOCAL GOVERNING CODES, AND REGULATIONS AS WELL AS THE ACI AND UNIFORM BUILDING CODE.

FOUNDATION FOR PEDESTRIAN SIGNAL
NOT TO SCALE



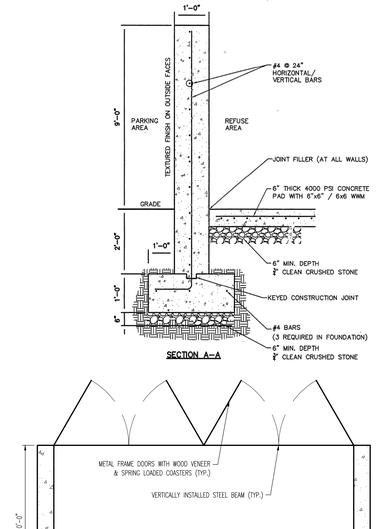
PEDESTAL SHAFT CHART	
ASSEMBLY HEIGHT, " H "	SHAFT LENGTH, " L "
6' - 0"	4' - 10 3/4"
8' - 0"	6' - 10 3/4"
10' - 0"	8' - 10 3/4"
12' - 0"	10' - 10 3/4"
14' - 0"	12' - 10 3/4"
16' - 0"	14' - 10 3/4"
18' - 0"	16' - 10 3/4"
20' - 0"	18' - 10 3/4"

REVISIONS			
NO.	DESCRIPTION	DATE	BY
A	RE DWG NO. MAS 9500 RE 22" ANCHOR BOLT LENGTH WAS 24"	10/31/18	GMM

Signal Control Products, Inc.
199 Evans Way
Branchburg, NJ
08876-4600

James M. Pinelli
jim@signalcontrol.com
Phone: (908) 231-1133
Fax: (908) 707-0333
Cell: (732) 995-6910
www.signalcontrol.com

PEDESTRIAN SIGNAL BASE ASSEMBLY DETAIL
NOT TO SCALE



NOTES:
1. WALL TREATMENT SHALL MATCH BUILDING ARCHITECTURE IN WHICH IT SERVES.
2. NO TRASH AND OR DEBRIS WILL BE STACKED TO BE VISIBLE ABOVE THE HEIGHT OF THE ENCLOSURE WALLS.
3. FINAL SIZE AND DESIGN OF ALL ENCLOSURES SHALL BE REVIEWED AND APPROVED BY THE TOWNSHIP'S PLANNING STAFF.

REFUSE ENCLOSURE DETAIL
NOT TO SCALE

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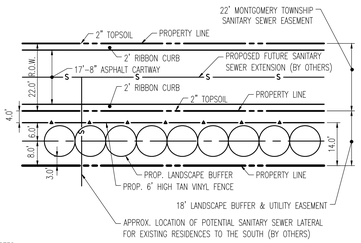
Plotted: 11/06/19 – 1:51 PM By: bgaudin
File: P:\DEPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\0431401564 5.dwg, ----> 64 CONSTRUCTION DETAILS

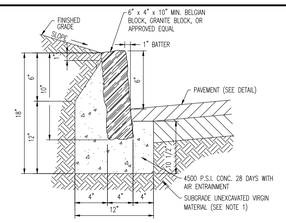
MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERSEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE



NOTES:
1. THE SANITARY SEWER LATERALS SHALL BE LOCATED BETWEEN BUFFER TREES TO MINIMIZE DISTURBANCE TO THE BUFFER AND ALLOW FOR MAINTENANCE AND ACCESS TO THE LATERAL.
2. ANY LANDSCAPING DAMAGED OR DESTROYED WHILE INSTALLING THE LATERALS SHALL BE REPLACED AT A SUITABLE LOCATION (TO TOWNSHIP) BY THE PARTY INSTALLING THE LATERAL.

LANDSCAPE BUFFER PLAN VIEW DETAIL

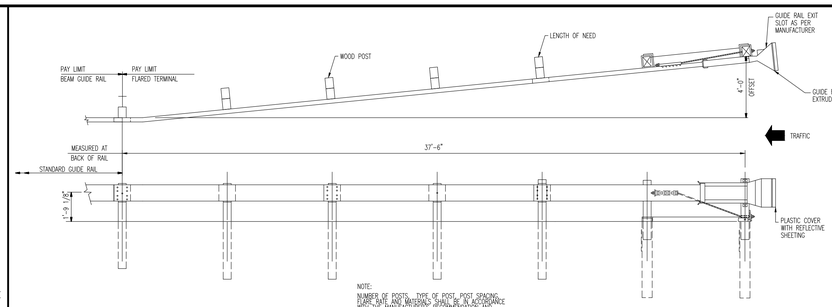
SCALE: 1"=20'



NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
2. JOINTS SHALL BE NOT MORE THAN 1/4" WIDE FOR DRESSED BLOCK AND 3/8" WIDE FOR QUARRY SPLIT BLOCK. THE JOINTS SHALL BE POINTED WITH 1:1 CEMENT-SAND MORTAR.
3. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART AND SHALL BE FILLED WITH PREFORMED, BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTO M-213, RECESSED 1/4" FROM THE FRONT FACE AND TOP OF THE CURB.

BELGIAN BLOCK CURB DETAIL

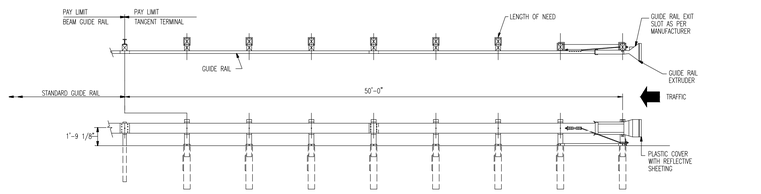
NOT TO SCALE



NOTE:
NUMBER OF POSTS, TYPE OF POST, POST SPACING, FLARE RATE AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION AND THE DEPARTMENT'S QUALIFIED PRODUCTS LIST

FLARED GUIDE RAIL TERMINAL

NOT TO SCALE

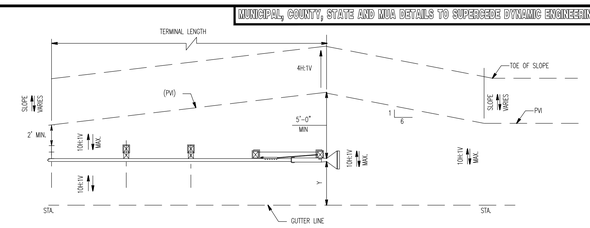


NOTE:
WOOD POSTS SHALL BE CONSTRUCTED USING FOUNDATION TUBES.

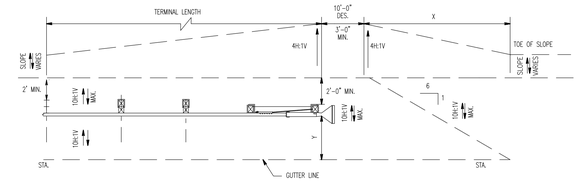
NOTE:
NUMBER OF POSTS, TYPE OF POST, POST SPACING AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION AND THE DEPARTMENT'S QUALIFIED PRODUCTS LIST

TANGENT GUIDE RAIL TERMINAL

NOT TO SCALE



STANDARD GRADING

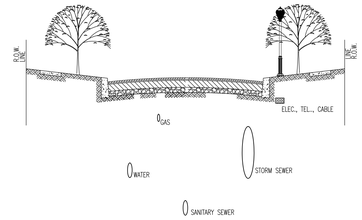


ALTERNATE GRADING

Y = OFFSET FROM GUTTER LINE	X	X + 10' (DES.)
* 1'-0"	24'-0"	34'-0"
4'-0"	42'-0"	52'-0"
7'-0"	60'-0"	70'-0"
10'-0"	78'-0"	88'-0"

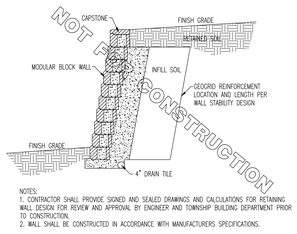
GRADING TREATMENT AT FLARED AND TANGENT TERMINALS

*NOTE:
WHERE GUIDE RAIL IS INSTALLED FLUSH WITH THE GUTTER LINE, THE TANGENT TERMINAL SHALL BE CONSTRUCTED WITH A 50:1 STRAIGHT FLARE FOR ITS ENTIRE LENGTH SO THAT THE EXTRUDER HEAD DOES NOT PROTRUDE INTO THE ROADWAY.



TYPICAL ROADWAY UTILITY SECTION DETAIL

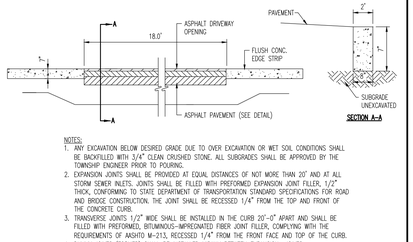
NOT TO SCALE



NOTES:
1. CONTRACTOR SHALL PROVIDE SIGNED AND SEALED DRAWINGS AND CALCULATIONS FOR RETAINING WALL DESIGN FOR REVIEW AND APPROVAL BY ENGINEER AND TOWNSHIP BUILDING DEPARTMENT PRIOR TO CONSTRUCTION.
2. WALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

TYPICAL MODULAR BLOCK WALL DETAIL

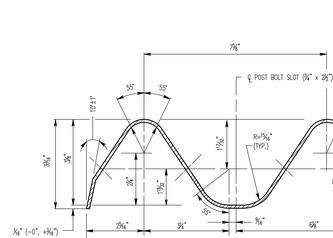
NOT TO SCALE



NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
2. EXPANSION JOINTS SHALL BE PROVIDED AT EQUAL DISTANCES OF NOT MORE THAN 20' AND AT ALL STORM SEWER INLETS. JOINTS SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER, 1/2" THICK, CONFORMING TO STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THE JOINT SHALL BE RECESSED 1/4" FROM THE TOP AND FRONT OF THE CONCRETE CURB.
3. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART AND SHALL BE FILLED WITH PREFORMED, BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTO M-213, RECESSED 1/4" FROM THE FRONT FACE AND TOP OF THE CURB.
4. DUMMY JOINTS (FORMED) SHALL BE INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.
5. WIDTH OF JOINT FILLER STRIP EQUAL TO THE THICKNESS OF THE PAVEMENT LESS 1/2".
6. 1/2" PREFORMED EXPANSION JOINT FILLER, BITUMINOUS TYPE, CONFORMING TO AASHTO SPEC'S M-33, TO BE INSTALLED BETWEEN CURB AND NON-BITUMINOUS PAVEMENT OR BASE COURSE.

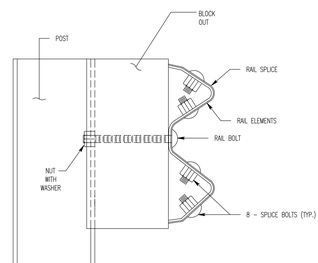
CONCRETE EDGE STRIP AT DRIVEWAY DETAIL

NOT TO SCALE

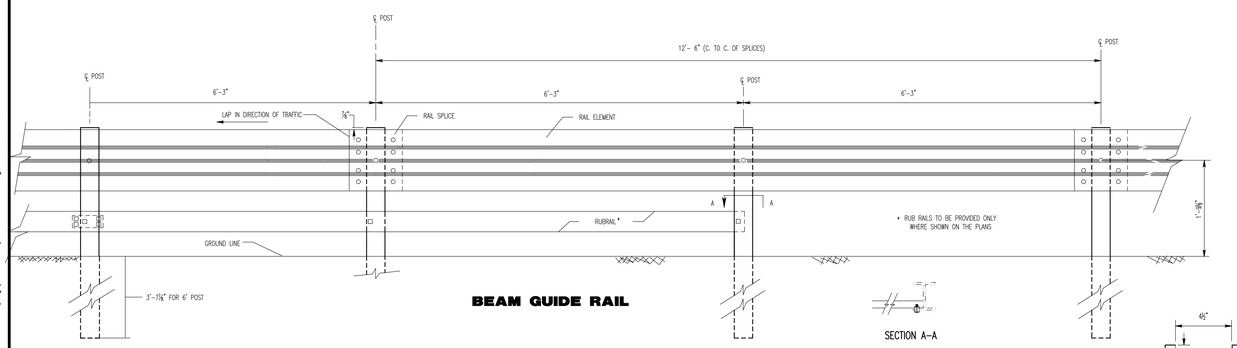


RAIL ELEMENT SHALL BE SUPPLIED IN LENGTHS OF 13'-6¾" OR 26'-5½"

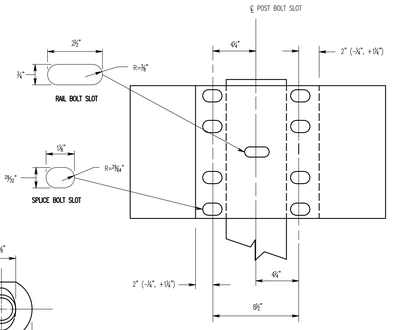
W-BEAM RAIL ELEMENT



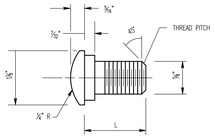
BEAM GUIDE RAIL POST ASSEMBLY



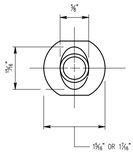
BEAM GUIDE RAIL



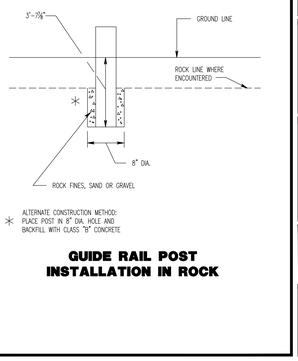
RAIL SPLICE



TYPE	L	MIN. THREAD LENGTH
SPLICE	1¼"	FULL LENGTH THREAD
RAIL	1¾"	1¼"

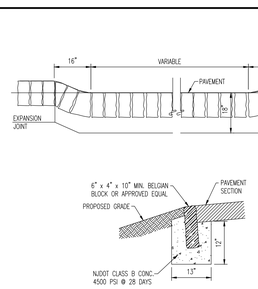


5/8" DIA. BUTTON HEAD BOLT

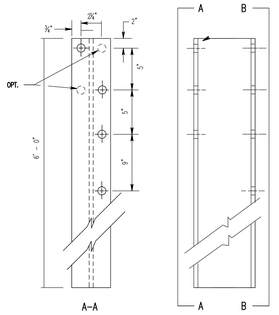


ALTERNATE CONSTRUCTION METHOD: PLACE POST IN 8" DIA. HOLE AND BACKFILL WITH CLASS "B" CONCRETE

GUIDE RAIL POST INSTALLATION IN ROCK

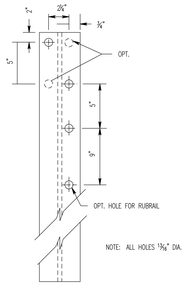


FLUSH BELGIAN BLOCK DETAIL

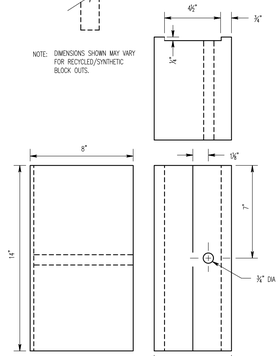


W6 x 8.5 OR W6 x 9 STEEL POST

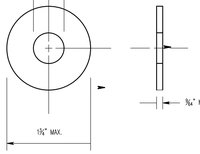
6' POST



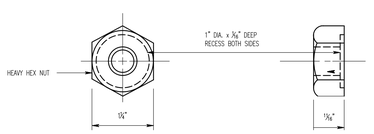
NOTE: ALL HOLES 1⅜" DIA.



14" BLOCK OUT



STEEL WASHER



5/8" DIA. RECESS NUT

SPLICE & RAIL NUT & BOLT

GENERAL NOTES:
1. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
2. RAIL ELEMENTS SHALL BE FURNISHED SHOPCURVED, CONCAVE OR CONVEX, FOR RADII BETWEEN 20 AND 150 FEET.
3. THE STEEL FOR RAIL ELEMENTS AND BOLTS SHALL CONFORM TO NJDOT STANDARD SPECIFICATIONS AND ITS AMENDMENTS.

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Plotted: 11/06/19 - 1:52 PM, By: bgrubin
File: P:\DESPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown - Franklin TPKE\dwg\Site Plans\0431401550516.dwg, ----> 65 CONSTRUCTION DETAILS

DYNAMIC
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NO	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJW
15	09/03/19	REV. PER COUNTY COMMENTS	AJW
14	07/11/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BSC
12	05/01/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JDS
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW
10	02/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/BSC
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/BSC
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/BSC
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/BSC
6	08/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/BSC
5	07/31/18	REV. PER TOWNSHIP & DRBC COMMENTS	AJW
4	06/27/18	REV. PER COUNTY COMMENTS	AJW/BSC
3	04/19/18	REV. PER TOWNSHIP, SCD & DRBC COMMENTS	AJW/BSC
REV.	DATE	COMMENTS	BY

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD — CONSTRUCTION CHECK — 09/25/18 — DATE
— — CONSTRUCTION CHECK — — DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 66; TAX MAP SHEET #50
GEORGETOWN-FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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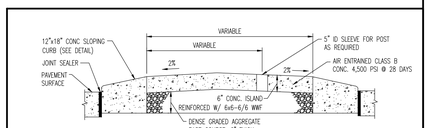
JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: CONSTRUCTION DETAILS

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 65 OF 77 — Rev. #: 16



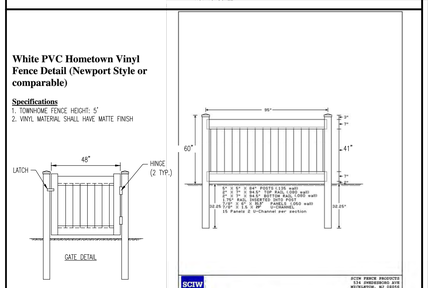
MOUNTABLE CONCRETE ISLAND 6" THICK

NOT TO SCALE

White PVC Hometown Vinyl Fence Detail (Newport Style or comparable)

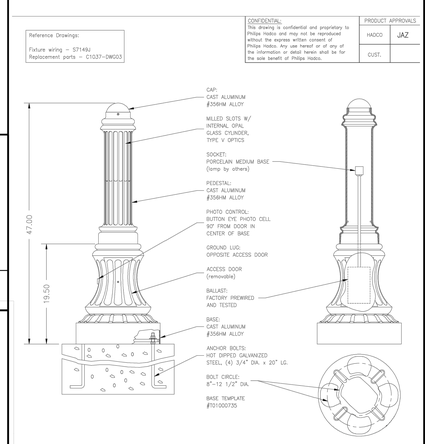
Specifications

1. TOWNHOME FENCE HEIGHT: 5'
2. VINYL MATERIAL SHALL HAVE MATTE FINISH



TOWNHOME VINYL FENCE DETAIL

NOT TO SCALE



C/C	COLOR	PART #	DIST.	SOURCE	WATT	WEIGHT
05-3418	BLACK	S5885-50H-A	5	MH	50	70 LBS.
05-3422	BLACK	S5885-70H-A	5	MH	70	70 LBS.
05-3423	BLACK	S5885-100H-A	5	MH	100	70 LBS.
05-3021	BRONZE	S5885-70H-H	5	MH	70	70 LBS.
05-3420	BLACK	S5885-70S-A	5	HPS	70	70 LBS.
05-3421	BLACK	S5885-100S-A	5	HPS	100	70 LBS.
05-3424	GREEN	S5885-70S-J	5	HPS	70	70 LBS.
05-3424	GREEN	S5885-100S-J	5	HPS	100	70 LBS.

PSEG PUBLIC SERVICE ELECTRIC AND GAS COMPANY NEWARK, N.J. | PHILIPS | HADCO

JOB NAME: Classic Ballard | REP. TERRITORY: 52

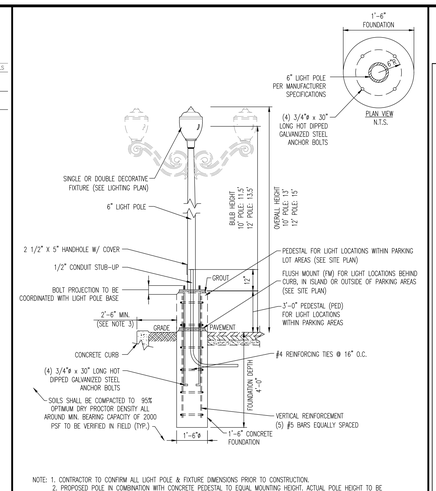
SCALE: | DATE: 03/22/00 | DRAWN BY: TAG | DRAWING NUMBER: S5985

REP.: Dave Murphy & Associates | REV.: M | BY: SMK | PO#: 13-085 | DATE: 10/08/13

OR APPROVED EQUAL

DECORATIVE BOLLARD LIGHT DETAIL

NOT TO SCALE



NOTE: 1. CONTRACTOR TO CONFIRM ALL LIGHT POLE & FIXTURE DIMENSIONS PRIOR TO CONSTRUCTION.
2. PROPOSED POLE IN COMBINATION WITH CONCRETE PEDESTAL TO EQUAL MOUNTING HEIGHT. ACTUAL POLE HEIGHT TO BE ADJUSTED ACCORDINGLY.
3. PROPOSED CONCRETE FOUNDATION AND POLE TO BE CONSTRUCTED WITHIN SUBJECT PROPERTY UNLESS OTHERWISE NOTED. SETBACK FROM CURB IS PREFERRED BUT TO BE ADJUSTED AS NEEDED TO PREVENT ENCROACHMENT OVER PROPERTY LINE.
4. FOUNDATION DETAIL IS PROVIDED FOR MAXIMUM FIXTURE MOUNTING HEIGHT OF FOURTEEN (14') FEET. CONTRACTOR TO CONTACT ENGINEER FOR ALTERNATE DETAIL FOR MOUNTING HEIGHT GREATER THAN FOURTEEN (14') FEET.

SOIL NOTES

1. FOOTING DESIGN BASED ON ASSUMED MAXIMUM ALLOWABLE SOILS BEARING CAPACITY OF 2,000 SF PSF. CONTRACTOR RESPONSIBLE TO VERIFY ADEQUACY OF ASSUMED BEARING CAPACITY PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED IF INCONSISTENCIES EXIST.
2. SUBGRADE TO BE FREE OF ORGANICS AND BE SUITABLE, COMPACTED MATERIAL.

CONCRETE NOTES

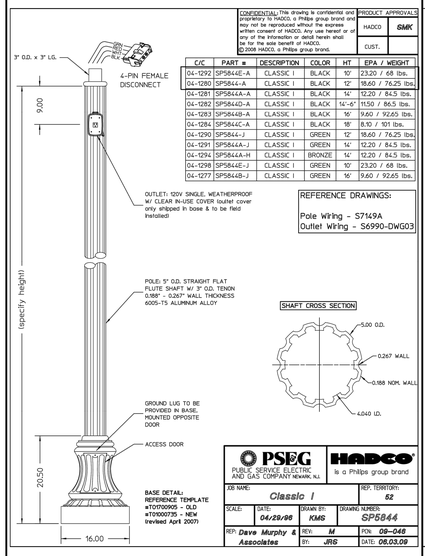
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
3. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED (WITHIN 1% TOLERANCE), CONFORMING TO ASTM C260.
4. REINFORCING FRAMEWORK AND PLACEMENT OF CONCRETE SHALL COMPLY WITH GOOD CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH ALL LOCAL GOVERNING CODES AND REGULATIONS AS WELL AS THE ACI AND UNIFORM BUILDING CODE.

DWN - AJW

DECORATIVE LIGHT FOUNDATION DETAIL

NOT TO SCALE

MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERSEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE



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PRODUCT APPROVALS: HADCO SMK | CUST.

C/C	PART #	DESCRIPTION	COLOR	HT	EPA / WEIGHT
04-1292	SPS844E-A	CLASSIC I	BLACK	10'	23.20 / 68 lbs.
04-1280	SPS844-A	CLASSIC I	BLACK	12'	18.60 / 76.25 lbs.
04-1281	SPS844A-A	CLASSIC I	BLACK	14'	12.20 / 84.5 lbs.
04-1282	SPS844D-A	CLASSIC I	BLACK	14'-6"	11.50 / 86.5 lbs.
04-1283	SPS844B-A	CLASSIC I	BLACK	16'	9.60 / 92.65 lbs.
04-1284	SPS844C-A	CLASSIC I	BLACK	18'	8.10 / 101 lbs.
04-1290	SPS844-J	CLASSIC I	GREEN	12'	18.60 / 76.25 lbs.
04-1291	SPS844A-J	CLASSIC I	GREEN	14'	12.20 / 84.5 lbs.
04-1294	SPS844A-H	CLASSIC I	BRONZE	14'	12.20 / 84.5 lbs.
04-1298	SPS844E-J	CLASSIC I	GREEN	10'	23.20 / 68 lbs.
04-1277	SPS844B-J	CLASSIC I	GREEN	16'	9.60 / 92.65 lbs.

REFERENCE DRAWINGS:
Pole Wiring – S7149A
Outlet Wiring – S6990-DWG03

SHAFT CROSS SECTION

PSEG PUBLIC SERVICE ELECTRIC AND GAS COMPANY NEWARK, N.J. | HADCO is a Philips group brand

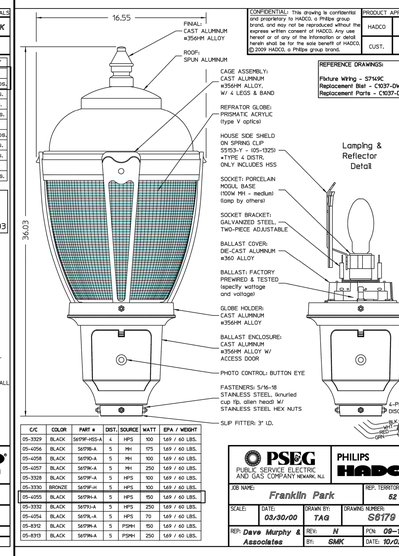
JOB NAME: Classic I | REP. TERRITORY: 52

SCALE: | DATE: 04/28/98 | DRAWN BY: KMS | DRAWING NUMBER: SPS844

REP.: Dave Murphy & Associates | REV.: M | BY: JRS | PO#: 09-048 | DATE: 08.03.09

DECORATIVE LIGHT POLE DETAIL

NOT TO SCALE



REFERENCE DRAWINGS:
Fixture Wiring – S7149C
Replacement Bid – C1037-DWG01
Replacement Parts – C1037-DWG03

C/C	COLOR	PART #	DIST.	SOURCE	WATT	EPA / WEIGHT
05-3329	BLACK	S6119F-HSS-A	4	HPS	100	1.69 / 60 LBS.
05-4056	BLACK	S6119B-A	5	MH	175	1.69 / 60 LBS.
05-4058	BLACK	S6119D-A	5	MH	100	1.69 / 60 LBS.
05-4057	BLACK	S6119C-A	5	MH	250	1.69 / 60 LBS.
05-3328	BLACK	S6119F-A	5	HPS	100	1.69 / 60 LBS.
05-3330	BRONZE	S6119F-H	5	HPS	100	1.69 / 60 LBS.
05-4055	BLACK	S6119H-A	5	HPS	150	1.69 / 60 LBS.
05-3332	BLACK	S6119J-A	5	HPS	250	1.69 / 60 LBS.
05-4054	BLACK	S6119L-A	5	HPS	70	1.69 / 60 LBS.
05-8312	BLACK	S6119K-A	5	PSMH	150	1.69 / 60 LBS.
05-8313	BLACK	S6119A-A	5	PSMH	250	1.69 / 60 LBS.

PSEG PUBLIC SERVICE ELECTRIC AND GAS COMPANY NEWARK, N.J. | PHILIPS | HADCO

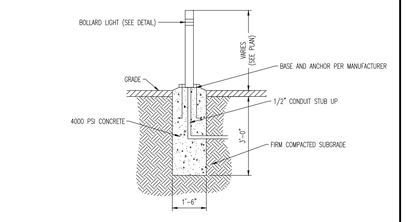
JOB NAME: Franklin Park | REP. TERRITORY: 52

SCALE: | DATE: 03/30/00 | DRAWN BY: TAG | DRAWING NUMBER: S8179

REP.: Dave Murphy & Associates | REV.: N | BY: SMK | PO#: 08-109 | DATE: 10/02/09

DECORATIVE LIGHT DETAIL

NOT TO SCALE

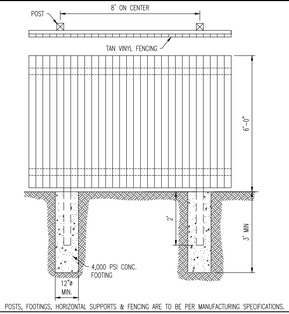


NOTE: BOLLARD TO BE ANCHORED TO FOUNDATION PER MANUFACTURER SPECIFICATIONS

DWN - AJW

LIGHT BOLLARD FOUNDATION DETAIL

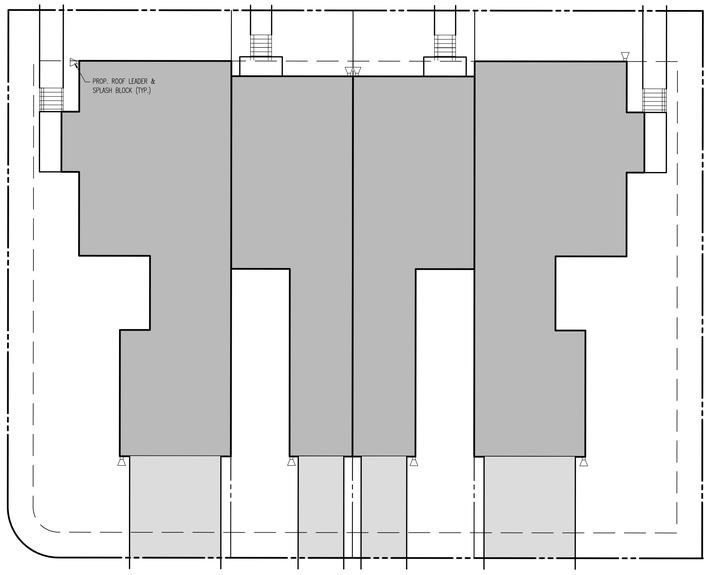
NOT TO SCALE



NOTE: POSTS, FOOTINGS, HORIZONTAL SUPPORTS & FENCING ARE TO BE PER MANUFACTURING SPECIFICATIONS.

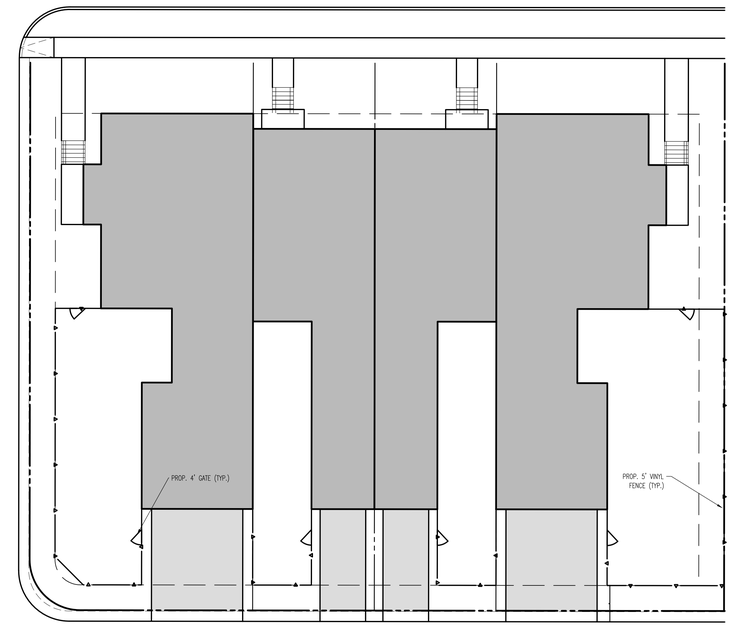
TAN BUFFER VINYL FENCE DETAIL

NOT TO SCALE



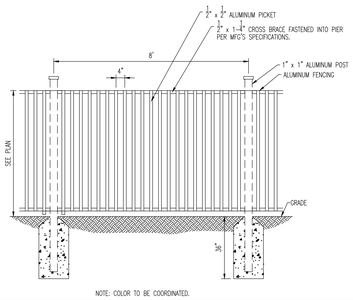
ROOF LEADER DETAIL

NOT TO SCALE



FENCE LOCATION DETAIL

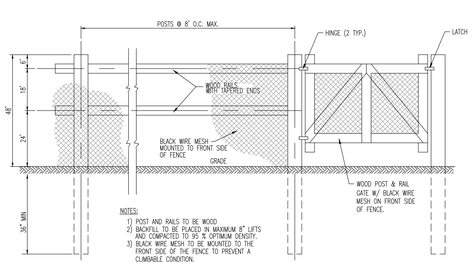
NOT TO SCALE



NOTE: COLOR TO BE COORDINATED.

ALUMINUM FENCE DETAIL

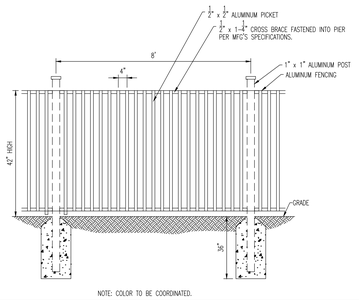
NOT TO SCALE



NOTES:
1) POST AND RAILS TO BE WOOD.
2) BACKFILL TO BE PLACED IN MAXIMUM 8" LIFTS AND COMPACTED TO 95 % OPTIMUM DENSITY.
3) BLACK WIRE MESH TO BE MOUNTED TO THE FRONT SIDE OF THE FENCE TO PREVENT A CLIMBABLE CONDITION.

POST AND RAIL FENCE DETAIL (SPLIT RAIL FENCE)

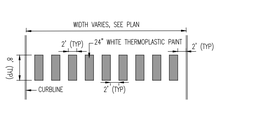
NOT TO SCALE



NOTE: COLOR TO BE COORDINATED.

FALL PROTECTION ALUMINUM FENCE DETAIL

NOT TO SCALE



VILLAGE DRIVE PAINTED CROSSWALK STRIPING DETAIL

NOT TO SCALE

REV.	DATE	COMMENTS
16	11/20/19	REV. PER FIELD CHANGES
15	08/20/19	REV. PER COUNTY COMMENTS
14	07/17/19	REV. PER COUNTY COMMENTS
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS
12	05/07/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS
11	03/27/19	REV. PER TOWNSHIP COMMENTS
10	02/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE
8	11/21/18	REV. PER COUNTY COMMENTS
7	10/19/18	REV. PER RESOLUTION COMPLIANCE
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS
5	08/21/18	REV. PER TOWNSHIP & SRTC COMMENTS
4	07/17/18	REV. PER RESOLUTION COMPLIANCE
3	04/19/18	REV. PER TOWNSHIP, SCD & SRTC COMMENTS
2	01/16/18	REV. PER COUNTY COMMENTS
1	12/15/17	REV. PER SCD COMMENTS
BY:		

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18 — CONSTRUCTION CHECK — DATE

— — — CONSTRUCTION CHECK — DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK: 28005, LOT: 65; TAX MAP SHEET #30
6 RESEARCH ROAD & 1 GEORGETOWN ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: CONSTRUCTION DETAILS

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 66 OF 77 | Rev. #: 16

Plotted: 11/06/19 – 1:52 PM, By: bgaudin
File: P:\DESPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\0431401SSD16.dwg, ---> 66 CONSTRUCTION DETAILS

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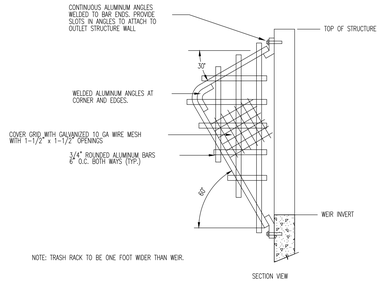
MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERSEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE

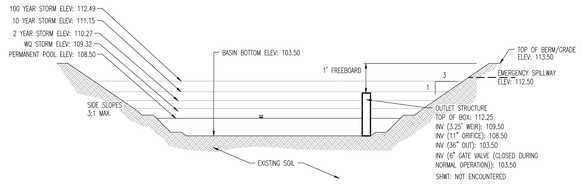


NOTE: TRASH RACK TO BE ONE FOOT WIDER THAN WEIR.

SECTION VIEW

TRASH RACK FOR WEIR DETAIL

NOT TO SCALE

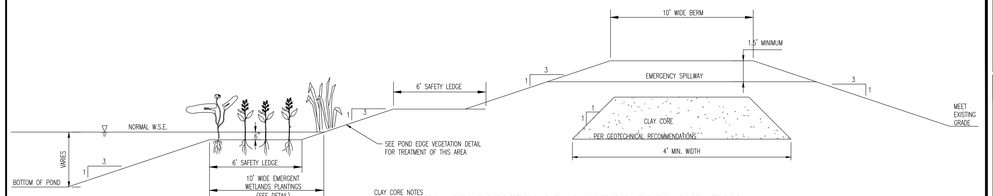


CROSS-SECTION A-A

NOTE: WET POND BASIN BERM TO HAVE CLAYCORE AS SHOWN ON THE WET POND BASIN BERM W/ CLAYCORE DETAIL.

WET POND BASIN A1 DETAIL

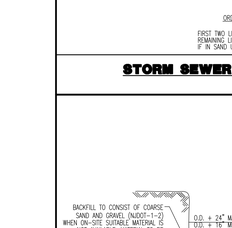
NOT TO SCALE



CLAY CORE NOTES
1. CLAY CORE SHALL EXTEND AT LEAST 3 FEET BELOW EXISTING GROUND SURFACE OR 1 FOOT BELOW MEASURED WATER TABLE.
2. CLAY CORE MATERIAL SHALL BE MIN. 50% PASSING U.S. STANDARD NO. 200 SIEVE.
3. CORE MATERIAL SHALL HAVE MIN. PLASTICITY INDEX OF 7%.
4. CORE MATERIALS SHALL PLOT ABOVE THE "A" LINE ON THE PLASTICITY CHART.

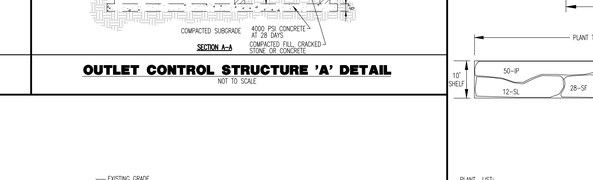
TYPICAL WET POND DETAIL

NOT TO SCALE



TRASH RACK FOR ORIFICE DETAIL

NOT TO SCALE

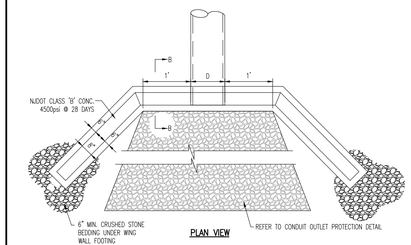


CROSS-SECTION A-A

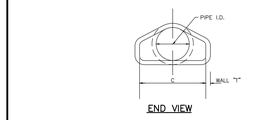
NOTE: WET POND BASIN BERM TO HAVE CLAYCORE AS SHOWN ON THE WET POND BASIN BERM W/ CLAYCORE DETAIL.

WET POND BASIN A2 DETAIL

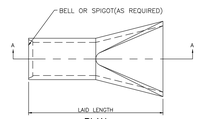
NOT TO SCALE



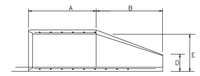
PLAN VIEW



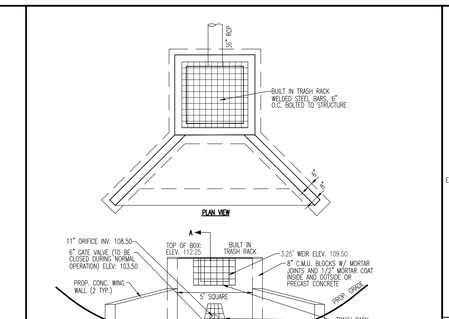
END VIEW



PLAN

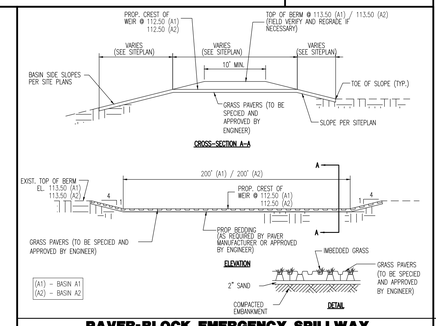


SECTION A-A



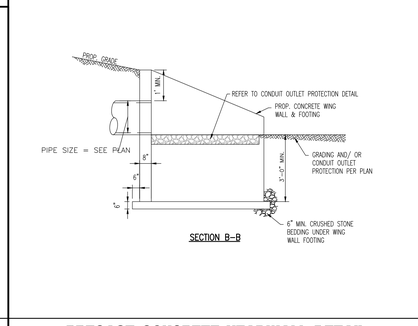
OUTLET CONTROL STRUCTURE 'A' DETAIL

NOT TO SCALE



PAVER-BLOCK EMERGENCY SPILLWAY DETAIL (WET POND A1 & A2)

NOT TO SCALE



SECTION B-B

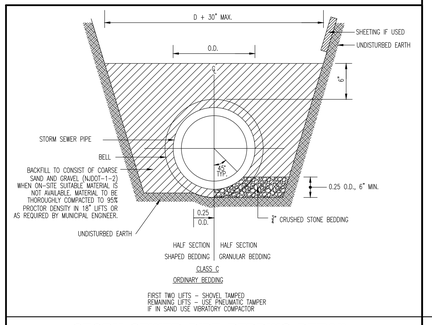
PRECAST CONCRETE HEADWALL DETAIL

NOT TO SCALE

INSIDE DIA. IN.	A IN.	B IN.	C IN.	D IN.	E IN.	LAID LENGTH	WEIGHT	WALL "t" IN.
12	49	24	24	4	13	6.00	530	2
15	46	27	30	6	16	6.08	740	2 1/4
18	46	27	36	9	19	6.08	990	2 1/2
21	38	35	42	9	22	6.08	1280	2 3/4
24	30	44	48	9 1/2	25	6.17	1520	3
27	26	48	54	10 1/2	28	6.17	1930	3 1/4
30	20	54	60	12	31	6.17	2190	3 1/2
36	35	63	72	15	37	8.17	4100	4
42	35	63	72	21	43	8.17	5380	4 1/2
48	26	72	84	24	49	8.17	6550	5
54	35	65	90	27	55	8.33	8040	5 1/2
60	39	60	96	30	61	8.25	8750	6

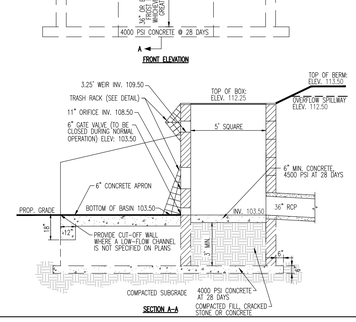
CONCRETE FLARED END SECTIONS

NOT TO SCALE



STORM SEWER PIPE BEDDING DETAIL

NOT TO SCALE



PLANT QUANTITY TOTAL FOR 50' SEGMENT

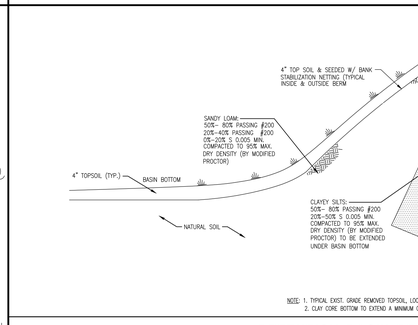
50-IP	45-IV	12-PC	21-SL
30-SC	58-SF	38-JUN	

PLANT LIST:
HERBACEOUS EMERGENT PLANTS:

SYM.	WET POND QUANTITIES:	SCIENTIFIC NAME	COMMON NAME	ROOT	SPACING
IP	1,100	IRIS PSEUDACORUS	YELLOW IRIS	2" PEAT POT	1' O.C.
IV	990	IRIS VERSICOLOR	BLUEFLAG IRIS	2" PEAT POT	1' O.C.
PC	264	PONTEDERIA CORDATA	PICKERELWEED	BR	2' O.C.
SL	462	SAGITTARIA LATIFOLIA	DUCK POTATO	BR	2' O.C.
SC	660	SAURUS CERNUS	LIZARD'S TAIL	2" PEAT POT	1' O.C.
SF	1,276	SCIRPUS FLUVIATUS	RIVER BULRUSH	2" PEAT POT	1' O.C.
JUN	836	JUNCUS EFFUSUS	SOFT RUSH	BR CLUMP	1' O.C.

POND EDGE VEGETATION DETAIL

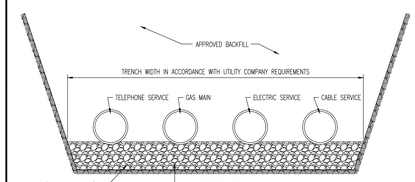
NOT TO SCALE



NOTE: 1. TYPICAL EXIST. GRADE REMOVED TOPSOIL, LOOSE OR FOREIGN MATERIALS AND ALL VEGETATION AND ROOT.
2. CLAY CORE BOTTOM TO EXTEND A MINIMUM OF 4' BELOW LOWEST POINT OF BASIN BOTTOM

DETENTION BASIN BERM W/CLAYCORE DETAIL

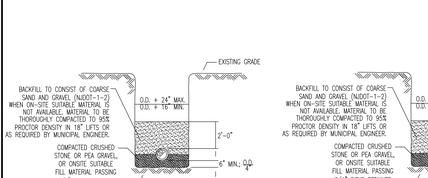
NOT TO SCALE



NOTES:
1. WHERE PIPE INVERTS ARE IN ROCK OR CLAY, EXCAVATE 6" BELOW INVERT OF PIPE AND FILL UNDERCUT WITH 3/4" CRUSHED STONE BEDDING.
2. WHERE PIPE INVERTS ARE IN SOFT ORGANIC SOIL AT LEAST 2 FEET OF 3/4" CRUSHED STONE SHALL BE USED FOR BEDDING, UNDERLAIN BY A LAYER OF FILTER FABRIC SUCH AS MIRAFI 140N OR EQUIVALENT AS DIRECTED BY THE ENGINEER.
3. WHERE PIPE INVERTS ARE IN FILL CONDITION, FILL IS TO BE CONTROLLED COMPACTED FILL.

MULTIPLE UTILITY BEDDING DETAIL

NOT TO SCALE



NOTE: DGA SHALL BE USED AS BACKFILL IN ALL PAVED AREAS

MAXIMUM DEPTH OF FILL OVER VARIOUS TYPES OF SEWER PIPE

TYPE OF PIPE	BEDDING CLASSIFICATION	MAXIMUM FILL OVER PIPE (FT) (6" & 8")	MAXIMUM FILL OVER PIPE (FT) (10" & 12")
CAST OR DUCTILE IRON PIPE (CIP) (DIP)	A	30	30
	B	22	20
	C	18	16
POLYVINYL CHLORIDE PIPE (PVC)	A	30	30
	B	22	20
	C	18	16

PIPE BEDDING DETAIL

NOT TO SCALE

REV.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJW
15	08/05/19	REV. PER COUNTY COMMENTS	AJW
14	07/11/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BJC
12	05/01/19	REV. PER FREAS EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JDS
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW/JDS
10	02/27/19	REV. PER FIELD CHANGES AND TOWNSHIP COMMENTS	AJW/JDS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/JDS
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JDS
7	10/16/18	REV. PER RESOLUTION COMPLIANCE	AJW/JDS
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JDS
5	07/17/18	REV. PER TOWNSHIP & DRBC COMMENTS	AJW
4	06/25/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JDS
3	04/19/18	REV. PER TOWNSHIP, SCD & DRBC COMMENTS	AJW/JDS
REV.	DATE	COMMENTS	BY

COMMENT: **FINAL FOR SEWER DESIGN**

DJD — 09/25/18
CONSTRUCTION CHECK — DATE
— — —
CONSTRUCTION CHECK — DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK: 28005, LOT: 65; TAX MAP SHEET #50
601 HOES LANE, PROMENADE II & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53540

TITLE: **CONSTRUCTION DETAILS**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 67 OF 77 — Rev. #: 16

Plotted: 11/06/19 - 1:52 PM By: bgaudin
File: P:\DEC\PC PROJECTS\0043 Shorhell Development\14-015 Research Rd & Georgetown - Franklin TPKE\dwg\Site Plans\0431401550116.dwg, ---> 67 CONSTRUCTION DETAILS

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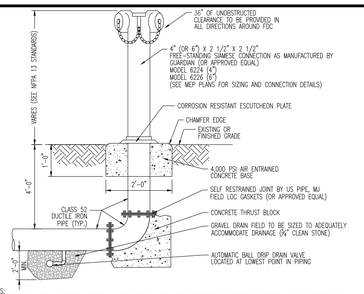
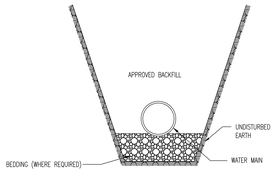


NOTES:
1. TYPE OF SIAMESE CONNECTION TO BE AS APPROVED BY LOCAL FIRE DEPARTMENT, GOVERNMENT AGENCY AND/OR WATER COMPANY
2. ALL PUMPER NOZZLES TO BE INSTALLED FACING TRAVELED WAY.
3. FDC TO BE LOCATED 2'-0" FROM CURB EDGE AND MUST BE WITHIN 25' OF A FIRE HYDRANT

FREESTANDING FIRE DEPARTMENT CONNECTION DETAIL

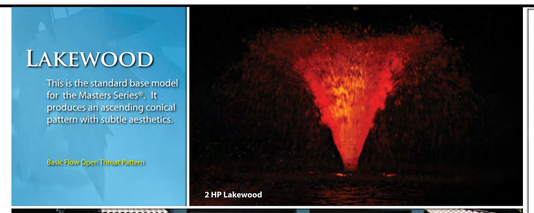
NOT TO SCALE

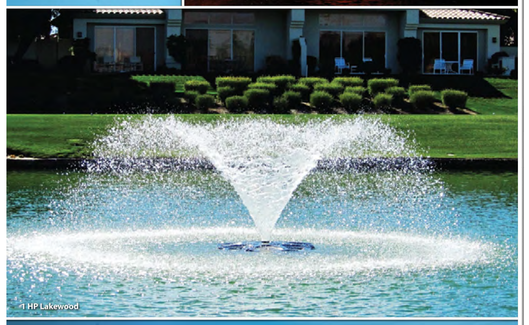


NOTES:
1. WHERE PIPE INVERTS ARE IN ROCK OR CLAY, EXCAVATE 6" BELOW INVERT OF PIPE AND FILL UNDERCUT WITH 3/4" CRUSHED STONE BEDDING.
2. WHERE PIPE INVERTS ARE IN SOFT ORGANIC SOIL AT LEAST 2 FEET OF 3/4" CRUSHED STONE SHALL BE USED FOR BEDDING, UNDERLAIN BY A LAYER OF FILTER FABRIC SUCH AS MIRAFI 140N OR EQUIVALENT AS DIRECTED BY THE ENGINEER.
3. WHERE PIPE INVERTS ARE IN FILL CONDITION, FILL IS TO BE CONTROLLED COMPACTED FILL.

WATER MAIN BEDDING DETAIL

NOT TO SCALE





50Hz / 60Hz	Horsepower	½	1	2	3 & 3.5	5	7.5	10
	HT x DIA ft	6.5 x 16	7 x 18	10 x 24	11 x 30	15 x 36	16 x 40	16.5 x 50
	Horsepower	½	1	2	3	5	7.5	10
	HT x DIA m	1.2 x 4.6	2.2 x 5.5	3.1 x 7.3	3.4 x 9.1	4.6 x 11.6	4.9 x 12.2	5 x 15.2

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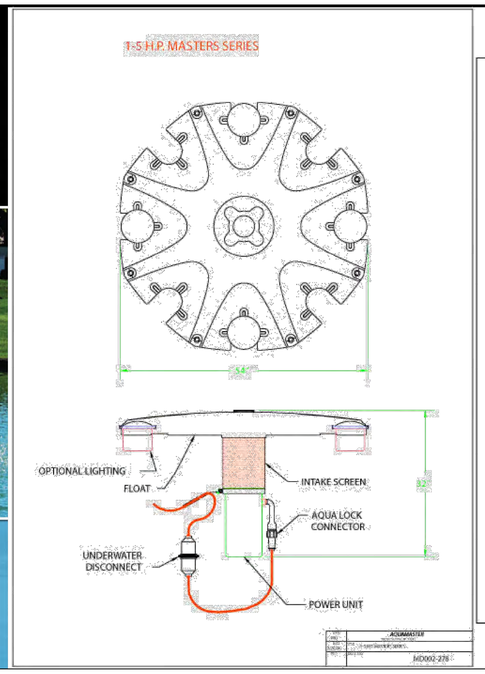
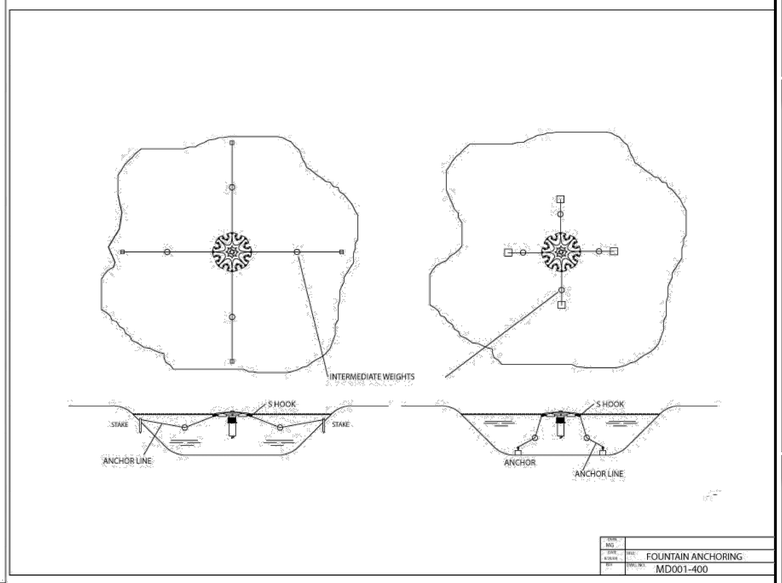




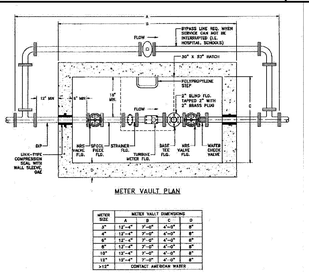
SCALE: NTS	DRAWN BY: RG	CHECKED BY:	DATE: 4/20/18

FOUNTAIN ANCHORING
DWG. NO. MD001-400

MASTER SERIES "LAKEWOOD" FOUNTAIN MOUNTING DETAILS

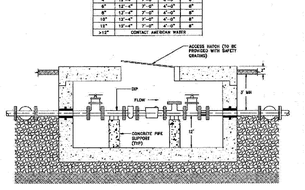
NOT TO SCALE

CONCRETE STRUCTURE NOTES:
1. PRECAST CONCRETE METER VAULT SHALL BE DESIGNED FOR THE FOLLOWING CONDITIONS: SOILDS BELOW (C.) THROUGH (J.) SHOWN CALCULATIONS TO BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.
1.A. STRUCTURE FILLED OR FOR WITH NO EXTERNAL SOIL PRESSURE.
1.B. STRUCTURE EMPTY AT 90 % OF SOIL PRESSURE AS DEFINED ABOVE (EXTERNAL WATER AT 90 % OF FINISHED GRADE).
1.C. STRUCTURE EMPTY, WITH LIVE LOAD AT 100 % OF FINISHED GRADE.
1.D. SOIL BEARING PRESSURE AT 2,000 PSF.
1.E. EFFECTS OF ALL VERTICAL LOADS ANTICIPATED ON THE FINISHED STRUCTURE, INCLUDING SOIL LOAD ON CONCRETE AT 4" OR LESS FOR A LOADING PLATE PIPES AND EQUIPMENT, WHEEL SURCHARGE LOADING, LIVE LOAD, AND ACTUAL DEPTH OF SOIL COVER SHALL BE USED.
2. PRECAST VAULT SECTIONS SHALL BE MADE OF POLYPROPYLENE SYNDICATE (PTSY) AS MANUFACTURED BY ACO, INDUSTRIES AND SHALL CONFORM TO ASTM C913.
3. THE EXTERIOR OF ALL PRECAST PRODUCTS SHALL BE COATED WITH TWO COATS OF COAL TAR EPOXY OR EQUIVALENT APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
4. CONCRETE WORK IN CONTACT WITH CONCRETE SHALL BE POURED WITH A MINIMUM COATS OF COAL TAR EPOXY OR EQUIVALENT APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
5. ALL PIPE OPENINGS IN CONTACT WITH SOIL SHALL BE WIRE BRUSHED AND PAINTED WITH TWO COATS OF COAL TAR EPOXY.
6. ALL CONCRETE SURFACES AND HARDWARE SHALL BE GALVANIZED STEEL.
7. PROVIDE CORROSION RESISTANT LOCKS FOR ALL HATCHES, PANELS, DOORS AND ACCESS OPENINGS. LOCKS SHALL BE KEYED ALIKE AND TWO KEYS SUPPLIED.
8. ALL CONCRETE STRUCTURES SHALL BE CONSTRUCTED WATERTIGHT. ALL STRUCTURES SHALL BE WATERTIGHT AND SHALL BE TESTED FOR SEALED WATERTIGHTNESS BY FILLING WITH WATER TO THE TOP OF THE WALL. AFTER FILLING, AN ACCEPTABLE LEAKAGE IS DEFINED AS A LOSS OF LESS THAN 1/2" IN 24 HOURS AND NO VISIBLE LEAKS. REPAIR OF LEAKS IS THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST.
9. DUAL SEAL 'A' GASKETS (MANUFACTURED BY NORA SEAL CORP.) SHALL MEET ASTM C-923 SPECIFICATIONS.
10. ALL CONCRETE SHALL BE SEALED WITH BITUMEN CONCEAL CR-114-W (DAVIT EQUIPMENT MATERIAL MANUFACTURED BY CONCRETE PROTECTIVE COATINGS) OR APPROVED EQUIVALENT APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
11. CONCRETE ENCASEMENT SHALL BE PROVIDED AS INDICATED ON DETAILS. CONCRETE SHALL HAVE 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
12. CONCRETE: f'c = 4,000 PSI AT 28 DAYS, TYPE II CEMENT, 6 ENTRAINMENT 28, 3 3/4, ASTM C94 MIX NO. 57 OR NO. 67 COARSE AGGREGATE.
13. REINFORCING STEEL: ASTM A615, GRADE 60, DEFORMED BARS, ASTM A185, BAR REINFORCEMENT SHALL BE STAGGERED TO ALLOW ADEQUATE SPACE.
14. VERTICAL BAR REINFORCEMENT REQUIRED BETWEEN BASE SLAB AND FIRST HORIZONTAL BAR OF STRUCTURE.
15. SHOP DRAWINGS TO BE PROVIDED AND SIGNED BY A LICENSED NJ PROFESSIONAL ENGINEER FOR FHTS LOADING



METER SIZE	METER VAULT DIMENSIONS A	B	C	D
2"	12'-4"	7'-4"	4'-4"	8"
4"	12'-4"	7'-4"	4'-4"	8"
6"	12'-4"	7'-4"	4'-4"	8"
8"	12'-4"	7'-4"	4'-4"	8"
10"	12'-4"	7'-4"	4'-4"	8"
12"	12'-4"	7'-4"	4'-4"	8"
>12"	CONTACT AMY BOYAR WATER			

WATER METER NOTES:
1. ALL PIPE AND FITTINGS TO BE THE SAME SIZE AS THE METER, REDUCERS ARE PROHIBITED ONLY WITH PRIOR AUTHORIZATION FROM AMERICAN WATER.
2. ALL PIPE SHALL BE CLEANED OF DEBRIS, SUPERFICIAL AND DISINFECTED AT THE WATER SHALL BE INSTALLED BACK PIPE.
3. ALL NEW OR EXISTING WATER LINES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651 AND AMERICAN WATER SPECIFICATIONS.
4. WATER METERS 1-1/2" AND GREATER SHALL BE BYPASS OF TURBINE METERS WITH BYPASS MODEL HEADS TO STYLE AND FLOW RATES OF THE METER AS SPECIFIED BY AMERICAN WATER.
5. TRACER WIRE REQUIRED FROM CURBSTOP, WATER MAIN TO METER VAULT.
6. FOR 1-1/2" METERS AND LARGER, PIPE SIZE NOT LESS THAN 12", DESIGN CRITERIA TO BE IN ACCORDANCE WITH AMERICAN WATER.
7. PIPING WITHIN VAULTS MAY BE SUBSTITUTED AS ALLOWABLE TO THE MANUFACTURER'S SPECIFICATIONS AND AMERICAN WATER, STEEL STILL BE FURNISHED.
8. NUNOET GLOVES REQUIRED ON ALL BYPASS LINE FITTINGS.

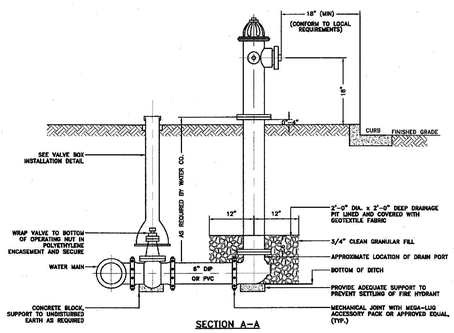


METER VAULT ELEVATION

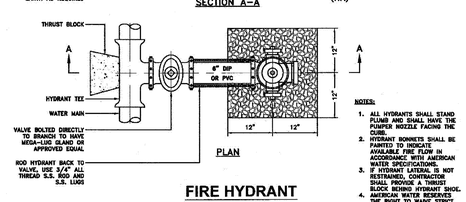
WATER METER PIT

(NJ AMERICAN WATER COMPANY)

NTS



SECTION A–A



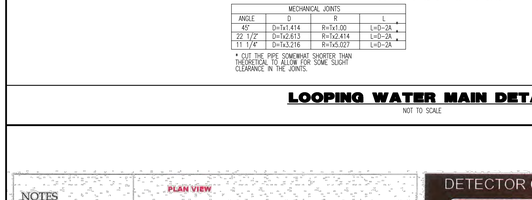
PLAN

NOTES:
1. ALL HYDRANTS SHALL STAND PLUMB AND SHALL HAVE THE PUMPER NOZZLE FACING THE CURB.
2. HYDRANT BONNETS SHALL BE PAINTED TO INDICATE AVAILABLE FIRE FLOW IN ACCORDANCE WITH AMERICAN WATER SPECIFICATIONS.
3. IF HYDRANT LATERAL IS NOT RESTRAINED, CONTRACTOR SHALL PROVIDE A THRUST BLOCK BEHIND HYDRANT SHOE.
4. ANY DEVIATION MUST BE APPROVED BY THE RIGHT TO WAIVE STRICT COMPLIANCE WITH THIS DETAIL IN THE EVENT THAT FIELD CONDITIONS OR O&M WORK REQUIRE A WAIVER.

FIRE HYDRANT

(NJ AMERICAN WATER COMPANY)

NTS



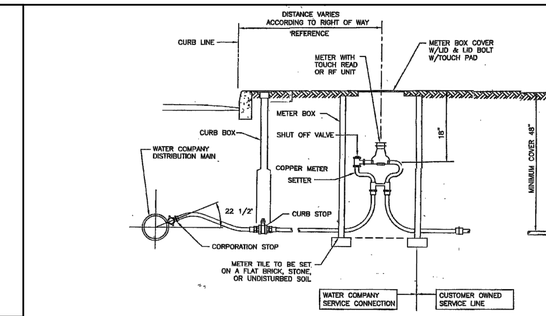
MECHANICAL JOINTS			
ANGLE	D	R	L
45°	D=Tx1.414	R=Tx1.00	L=D–2A
22 1/2°	D=Tx2.613	R=Tx2.414	L=D–2A
11 1/4°	D=Tx5.216	R=Tx5.027	L=D–2A

* CUT THE PIPE SOMEWHAT SHORTER THAN THEORETICAL TO ALLOW FOR SOME SLIGHT CLEARANCE IN THE JOINTS.

NOTES:
1. WATER MAIN MAY BE LOOPED ABOVE OBSTRUCTION IF 4'–0" MIN. COVER IS MAINTAINED ABOVE MAIN.
2. WATER MAIN SHALL BE DUCTILE IRON CEMENT LINED PIPE, CLASS 52, ALL JOINTS SHALL BE RESTRAINED MECHANICAL JOINT FOR LOOPING ASSEMBLY.
3. OFF SETS MAY BE SUBSTITUTED FOR "A" OR "T" UP TO 24" IF APPROVED BY ENGINEER
4. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS AND OTHER POINTS OF PIPE DIRECTION CHANGE.
5. MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN SHALL BE 18" MIN., CLEARANCE BETWEEN WATER MAIN & OTHER OBSTRUCTION SHALL BE 6". CONCRETE ENCASE SEWER TO OTHER SIDE IF ABOVE WATER MAIN.
6. TIE RODS OR RETAINER GLANDS SHALL BE UTILIZED TO RESTRAIN PIPE JOINTS. DETAILS OF THE TIE ROD ASSEMBLY SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. TIE RODS SHALL BE SUFFICIENT TO RESTRAIN THE THRUST DEVELOPED AT 150 PSI WORKING PRESSURE.

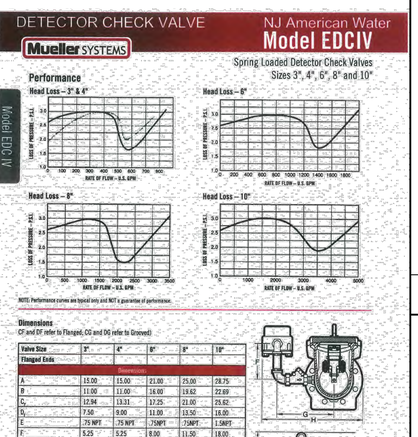
LOOPING WATER MAIN DETAIL

NOT TO SCALE

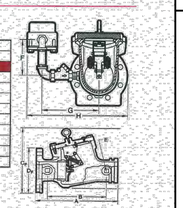


TYPICAL SERVICE LINE INSTALLATION

NEW JERSEY AMERICAN WATER COMPANY - FIELD SERVICE DEPARTMENT

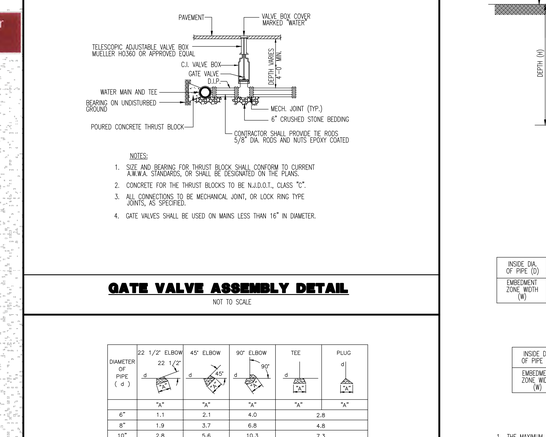


Valve Size	3"	4"	6"	8"	10"
Flanged Ends	Dimension				
A	15.00	15.00	21.00	25.00	28.75
B	11.00	11.00	16.00	19.62	22.69
C_F	12.94	13.31	17.25	21.00	25.62
D_F	7.50	9.00	11.00	13.50	16.00
E	.75 NPT	.75 NPT	.75NPT	.75NPT	1.5NPT
F	5.25	5.25	8.00	11.50	18.00
G	8.56	8.56	9.69	11.00	16.50
H	14.90	15.12	17.25	20.31	30.25
Weight	70.00	75.25	166.50	318.00	501.00



METER VAULT DETAILS

NOT TO SCALE



NOTES:
1. SIZE AND BEARING FOR THRUST BLOCK SHALL CONFORM TO CURRENT A.W.W.A. STANDARDS, OR SHALL BE DESIGNATED ON THE PLANS.
2. CONCRETE FOR THE THRUST BLOCKS TO BE N.J.D.O.T., CLASS "C".
3. ALL CONNECTIONS TO BE MECHANICAL JOINT, OR LOCK RING TYPE JOINTS, AS SPECIFIED.
4. GATE VALVES SHALL BE USED ON MAINS LESS THAN 16" IN DIAMETER.

GATE VALVE ASSEMBLY DETAIL

NOT TO SCALE

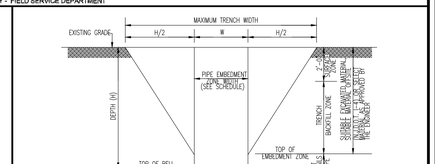
DIAMETER OF PIPE (d)	22 1/2° ELBOW	45° ELBOW	90° ELBOW	TEE	PLUG
	"A"	"A"	"A"	"A"	"A"
6"	1.1	2.1	4.0	2.8	
8"	1.9	3.7	6.8	4.8	
10"	2.8	5.6	10.3	7.3	
12"	4.0	7.9	14.5	10.3	
16"	7.0	13.6	25.2	17.8	
20"	10.7	21.0	38.9	27.5	
24"	15.3	30.0	55.5	39.2	

"A" – CONTACT BEARING AREA OF BLOCK WITH EARTH, IN SQUARE FEET

NOTES:
1. BEARING AREAS ARE BASED ON UNDISTURBED SOIL WITH A BEARING CAPACITY OF 2000 LBS. PER SQ. FT. FOR A LESSER SOIL BEARING CAPACITY, THESE AREAS SHALL BE INCREASED ACCORDINGLY.
2. ALL CONCRETE THRUST BLOCKS SHALL BE CLASS "C".
3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH.
4. THE COST OF THRUST BLOCKS SHALL BE INCLUDED IN THE PRICE BID FOR WATER MAINS.
5. TEST PRESSURE = 150 P.S.I.

TABLE OF THRUST BLOCKS DETAIL

NOT TO SCALE



TRENCH DETAIL
NOT TO SCALE

PIPE EMBEDMENT ZONE WIDTH SCHEDULE FOR PIPE MATERIAL OTHER THAN PVC

INSIDE DIA. OF PIPE (D)	4", 6", 8", 10", 12"	14", 15", 16"	18"	20", 21"	24"	27"	30"
EMBEDMENT ZONE WIDTH (W)	3'– 6"	3'– 9"	4'– 0"	4'– 3"	4'– 6"	5'– 0"	5'– 3"

PIPE EMBEDMENT ZONE WIDTH SCHEDULE FOR PVC

INSIDE DIA. OF PIPE (D)	4", 6", 8", 10", 12"	15"	18"	21"	24"	27"
EMBEDMENT ZONE WIDTH (W)	3'–0"	3'–6"	3'–6"	4'–0"	4'–0"	4'–6"

TRENCH EXCAVATION AND BACKFILL NOTES
1. THE MAXIMUM DRY DENSITIES SHALL BE DETERMINED IN ACCORDANCE WITH ASTM DESIGNATION D1557. THE MINIMUM PERCENTAGE OF COMPACTION TO BE ACHIEVED BY THE CONTRACTOR IN THE VARIOUS ZONES IS AS FOLLOWS:

PIPE MATERIAL	LOCATION	INITIAL COMPACTION
SURFACE ZONE	ALL	95%
TRENCH BACKFILL ZONE	ALL	90%
PIPE EMBEDMENT ZONE	ALL	95%

THE MINIMUM COMPACTION IN EMBANKMENTS SHALL BE 90%

2. THE PIPE EMBEDMENT ZONE WIDTH AND THE MAXIMUM TRENCH WIDTH SHALL NOT EXCEED THE PERMISSIBLE WIDTHS SHOWN. IF THE PERMISSIBLE WIDTH IS EXCEEDED, THE PIPE SHALL BE INSTALLED IN A HIGHER CLASS BEDDING THAN SHOWN ON THIS DRAWING OR THE SPECIFIED PIPE SHALL BE REPLACED WITH PIPE OF GREATER CRUSHING STRENGTH OR BOTH, TO ACHIEVE SUITABLE CONDITIONS.
3. SUITABLE MATERIAL FROM EXCAVATION SHALL BE FREE FROM OBJECTIONABLE QUANTITIES OF ORGANIC MATTER, CLAY, TREES, STUMPS, FROZEN MATERIAL, RUBBLE, CINDERS, ROCKS, AND OTHER MATERIALS CONSIDERED DELETERIOUS BY THE ENGINEER AND SHALL NOT HAVE FINES IN EXCESS OF 10 PERCENT PASSING THE NO. 200 SIEVE NOR STONE OR GRAVEL LARGER THAN 2 INCHES.

UTILITY TRENCH DETAIL

NOT TO SCALE

NO.	DATE	COMMENTS
16	11/01/19	REV. PER FIELD CHANGES
15	08/05/19	REV. PER COUNTY COMMENTS
14	07/17/19	REV. PER COUNTY COMMENTS
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS
12	05/01/19	REV. PER SHEAR EASEMENT CHANGES AND COUNTY COMMENTS
11	03/27/19	REV. PER COUNTY COMMENTS
10	02/27/19	REV. PER TOWNSHIP & BRCC COMMENTS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE
8	11/21/18	REV. PER COUNTY COMMENTS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS
5	07/17/18	REV. PER TOWNSHIP & BRCC COMMENTS
4	06/19/18	REV. PER RESOLUTION COMPLIANCE
3	04/19/18	REV. PER TOWNSHIP, BCD & BRCC COMMENTS
2	03/16/18	REV. PER COUNTY COMMENTS
REV.	DATE	COMMENTS

COMMENTS: **FINAL FOR SEWER DESIGN**

CONSTRUCTION CHECK: DJD — DATE: 09/25/18

CONSTRUCTION CHECK: — — DATE: —

PROJECT: SHARBELL BUILDING COMPANY, LLC
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK: 28004, LOT: 65; TAX MAP SHEET #50
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MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: CONSTRUCTION DETAILS

SCALE: AS SHOWN	DATE: 01/16/2018	DRAWN BY: AJW	DESIGNED BY: JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 68 OF 77 — Rev. #: 16

Plotted: 11/06/19 – 1:52 PM, By: bgaudin
File: P:\DEDPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\043140155D16.dwg, ---->68 CONSTRUCTION DETAILS

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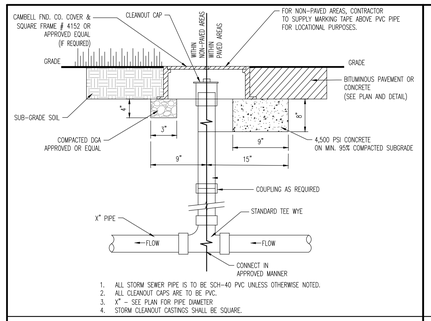
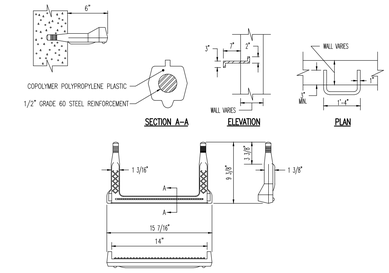
MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERSEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE



1. ALL STORM SEWER PIPE IS TO BE SCH-40 PVC UNLESS OTHERWISE NOTED.
2. ALL CLEANOUT CAPS ARE TO BE PVC.
3. X" = SEE PLAN FOR PIPE DIAMETER
4. STORM CLEANOUT CASTINGS SHALL BE SQUARE.

STORM CLEANOUT DETAIL

NOT TO SCALE

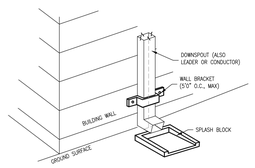


STEEL REINFORCED COPOLYMER POLYPROPYLENE LADDER RUNG

NOTE: LADDER RUNGS FACING TRAFFIC 12" C TO C

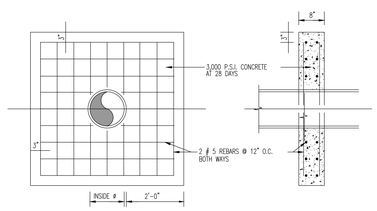
LADDER RUNG DETAIL

NOT TO SCALE



ROOF DRAIN WITH TEE, OVERFLOW & SPLASH BLOCK DETAIL

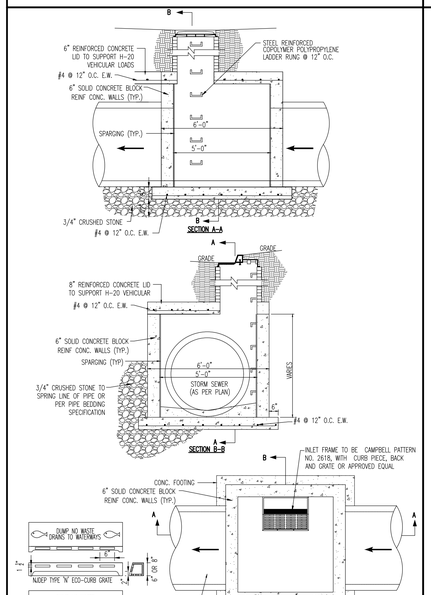
NOT TO SCALE



NOTES:
1. PRIOR TO CONSTRUCTION OF COLLAR, THE OUTSIDE OF THE PIPE SHALL BE CLEANED.
2. ALL REINFORCING STEEL SHALL BE GRADE 40.
3. ANTI-SEEP COLLARS SHALL BE INSTALLED ON ALL BASIN DISCHARGE PIPES IN ACCORDANCE WITH CLAY CORE DETAILS. DOWNSTREAM OF CLAY CORE, ANTI-SEEP COLLARS SHALL BE INSTALLED AT MAX. 50' INTERVALS TO DISCHARGE POINT.
4. ALL DIMENSIONS APPLY FOR R.C.P., H.E.R.C.P., CONCRETE BOX CULVERTS, ETC.

TYPICAL ANTI-SEEP COLLAR DETAIL

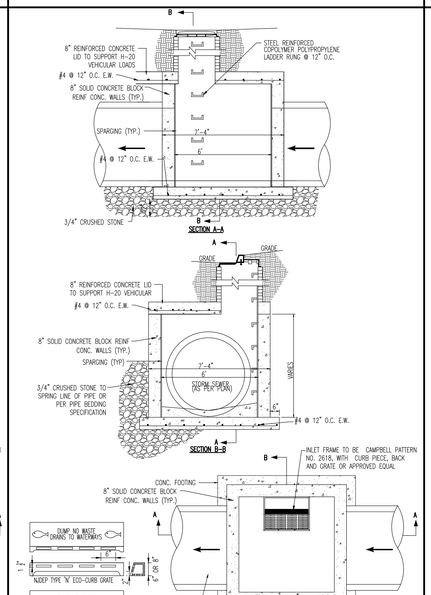
NOT TO SCALE



NOTES:
1. CONSTRUCTION SHALL BE 6" SOLID CONCRETE BLOCK WALL OR PRECAST.
2. ALL CONCRETE SHALL BE 4500 PSI UNLESS NOTED OTHERWISE.

5' X 5' STORM SEWER 'B' INLET DETAIL

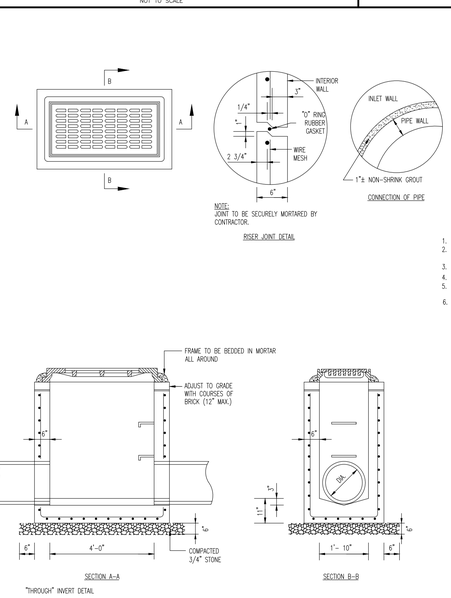
NOT TO SCALE



NOTES:
1. CONSTRUCTION SHALL BE 8" SOLID CONCRETE BLOCK WALL OR PRECAST.
2. ALL CONCRETE SHALL BE 4500 PSI UNLESS NOTED OTHERWISE.

6' X 6' STORM SEWER 'B' INLET DETAIL

NOT TO SCALE



GENERAL NOTES:
1. FOUNDATION AND WALLS TO BE 4500 PSI CONCRETE.
2. REINFORCING BARS TO BE DEFORMED IN ACCORDANCE WITH THE LATEST A.S.T.M. STANDARDS.
3. FRAME AND GRATE TO BE CAMPBELL FOUNDRY CASTING NUMBER 3405.
4. PROVIDE LADDER RUNGS AT 12" CENTER TO CENTER.
5. WHEN THE DEPTH OF AN INLET EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, THE BOTTOM OF THE INLET SHALL BE INCREASED TO 12".
6. MINIMUM WALL REINFORCEMENT:

DEPTH BELOW TOP OF GRATE	HORIZONTAL REINFORCEMENT	VERTICAL REINFORCEMENT	WALL THICKNESS
0' TO 10'-0"	#4 @ 10" C.C.	#4 @ 18" C.C.	6"
10'-1" TO 15'-0"	#4 @ 8" C.C.	#4 @ 18" C.C.	6"
15'-1" TO 20'-0"	#4 @ 6" C.C.	#4 @ 18" C.C.	6"

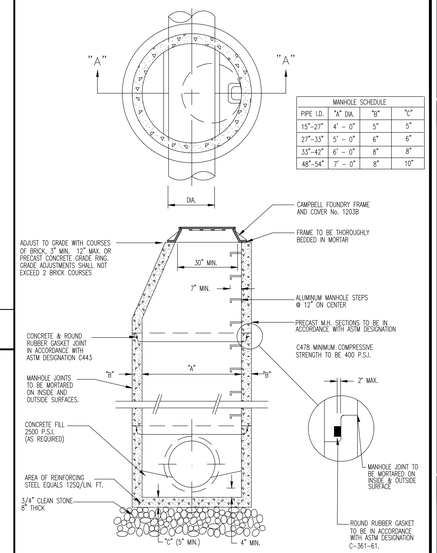
REINFORCING SHOWN FOR PRECAST INLETS IS THE MINIMUM REQUIRED. ADDITIONAL REINFORCING FOR HANDLING IS THE RESPONSIBILITY OF THE CONTRACTOR.

ALTERNATE REINFORCEMENT:

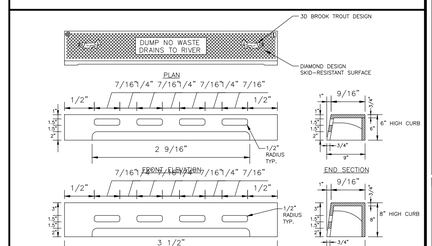
DEPTH BELOW TOP OF GRATE	WWR REINFORCEMENT
0' TO 10'-0"	WWR 3x6 W6 WIRES SPACED AT 3" TO RUN HORIZONTAL IN ALL CASES.
10'-1" TO 15'-0"	WWR 3x6 W6 ADD #3 BAR AT 18" HORIZONTAL.
15'-1" TO 20'-0"	WWR 3x6 W6 ADD #3 BAR AT 9" HORIZONTAL OR ADD #4 BAR AT 15" HORIZONTAL.

PRECAST STANDARD DRAINAGE MANHOLE

NOT TO SCALE



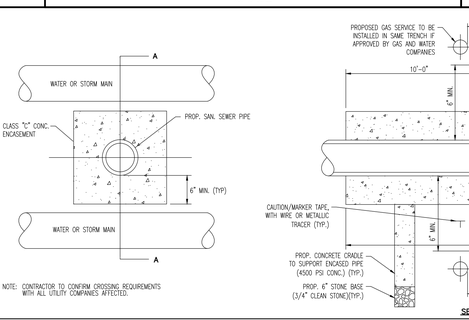
NOTES:
1. SPECIAL GRADING SHALL BE USED WHERE TOP OF MANHOLE PROTRUDES ABOVE ORIGINAL GRADE.
2. TOE OF SLOPE SHALL NOT EXTEND BEYOND THE EASEMENT LINE.
3. SPECIAL GRADING IS SYMMETRICAL AROUND CENTER OF THE MANHOLE COVER.
4. ALL PRECAST STRUCTURES SHALL MEET HS 20 LOADING REQUIREMENTS AND SHALL CONFORM WITH THE N.J.D.O.T. STANDARD SPECIFICATIONS 1989 OR AS AMENDED.
5. SHOP DRAWINGS SHALL BE SUBMITTED TO THE AUTHORITY'S ENGINEER FOR APPROVAL.
6. REINFORCING AS PER A.S.T.M. A185 AREA OF STEEL NOT LESS THAN 0.12 SQ. IN PER VERTICAL FOOT, CONCRETE 4,500 PSI.
7. MANHOLES TO WHICH FORCE MAINS ARE CONNECTED SHALL BE LINED WITH DURA-PLATE 100 PVC LINER AND BE PROVIDED WITH WATER-LOK CONNECTOR AS MANUFACTURED BY ATLANTIC CONCRETE PRODUCTS, OR OTHER APPROVED MATERIAL RESISTANT TO SULFIDE CORROSION.



NOTES:
1. MATERIAL: GRAY CAST IRON ASTM A48-83, CLASS 30B.
2. IN RETROFIT SITUATIONS THIS CURB PIECE (HEAD) WILL FIT EXISTING CAMPBELL FOUNDRY CO. MANUFACTURED CURB INLETS FOR NJDOT TYPES B, B-1, B-2, D, D-1, AND D-2
3. NAMEPLATE MESSAGE CAN BE MODIFIED TO YOUR SPECIFIC NEEDS WITHIN AREA SHOWN
4. CASTING SUPPLIED WITHOUT SURFACE COATING

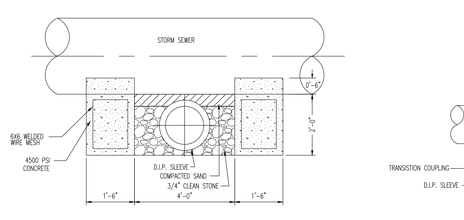
CURB PIECE TYPE "N" ECO DETAIL

NOT TO SCALE



CONCRETE ENCASEMENT CROSSING DETAIL

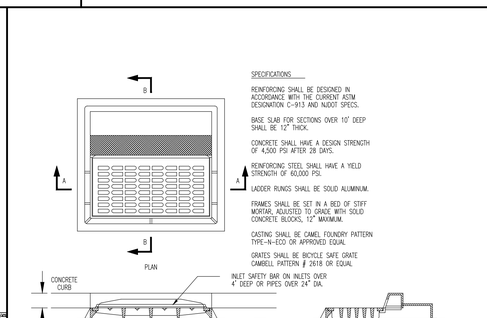
NOT TO SCALE



NOTES: 1. A FULL SECTION OF STORM DRAINAGE PIPE SHALL BE PLACED ACROSS THE ENTIRE CONCRETE CRADLE.
2. FOR PROTECTION OF SANITARY SEWER, INSTALL D.I.P. SLEEVE (2' DIA. LARGER THAN SANITARY SEWER) AS A CARRIER PIPE 5' BEYOND STORM SEWER IN EACH DIRECTION. REPLACE EXISTING SANITARY SEWER WITH PVC AND TRANSITION COUPLINGS.

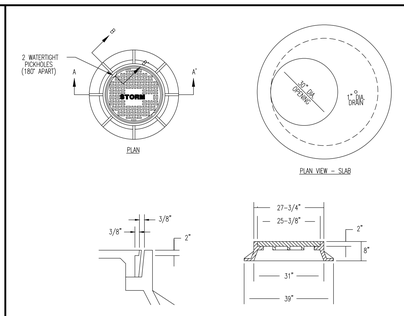
CONCRETE CRADLE DETAIL

NOT TO SCALE



PRECAST CONCRETE INLET TYPE "B" DETAIL

NOT TO SCALE



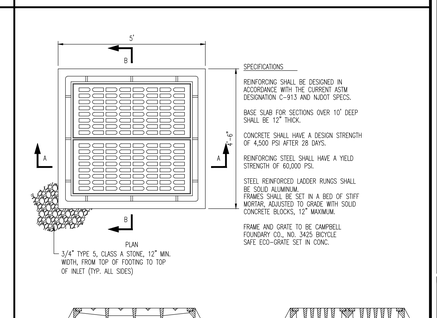
NOTES:
ALL DIMENSIONS ARE TO BE HELD TO A TOLERANCE OF 1/32" ON ALL CASTINGS TO PERMIT INTERCHANGING OF PARTS.
CASTINGS SHALL BE DIPPED IN ASPHALTUM PAINT.
CASTING TO BE CAMPBELL FOUNDRY #12038 OR APPROVED EQUAL MIN. WT. 425 LBS.
MANHOLE NUMBERS SHALL BE INDICATED ON CASTINGS, IN A MANNER ACCEPTABLE TO THE AUTHORITY'S ENGINEER.
SHOP DRAWINGS SHALL BE SUBMITTED TO THE AUTHORITY'S ENGINEER FOR APPROVAL.
MANHOLE NUMBERS SHALL BE INDICATED ON CASTINGS, IN A MANNER ACCEPTABLE TO THE AUTHORITY'S ENGINEER.

NOTES:
ALL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4,500 PSI (AFTER 28 DAYS).
REINFORCING STEEL SHALL BE 60,000 PSI.
SLAB SHALL BE DESIGNED FOR A CONCENTRATED LOAD OF 10,000 LBS.
15" TO 28" ONE PLATFORM REQUIRED OVER 28 REQUIRES TWO PLATFORMS.
ALL OTHER CONSTRUCTION DETAILS ARE SIMILAR TO THE STANDARD MANHOLE DETAIL.
SHOP DRAWINGS SHALL BE SUBMITTED TO THE AUTHORITY'S ENGINEER FOR APPROVAL.

ALLOY TYPE # 6061-T6 ALUMINUM CO. OF AMERICA, OR EQUAL. ALUMINUM RUNGS SHALL BE PROVIDED ON 12" CENTERS.

STANDARD STORM SEWER FRAME AND COVER DETAIL

NOT TO SCALE



PRECAST CONCRETE INLET TYPE "E" (UP TO 36") DETAIL

NOT TO SCALE

REV.	DATE	COMMENTS
16	11/01/19	REV. PER FIELD CHANGES
15	08/05/19	REV. PER COUNTY COMMENTS
14	07/17/19	REV. PER COUNTY COMMENTS
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS
12	05/07/19	REV. PER SEWAGE EASEMENT CHANGES AND COUNTY COMMENTS
11	04/17/19	REV. PER TOWNSHIP COMMENTS
10	03/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE
8	11/21/18	REV. PER COUNTY COMMENTS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS
5	07/31/18	REV. PER TOWNSHIP & BRICC COMMENTS
4	06/15/18	REV. PER COUNTY COMMENTS
3	04/19/18	REV. PER TOWNSHIP, BCE & BRICC COMMENTS
2	03/16/18	REV. PER COUNTY COMMENTS
1	02/16/18	REV. PER COUNTY COMMENTS
REV.	DATE	COMMENTS

COMMENTS: **FINAL FOR SEWER DESIGN**

CONSTRUCTION CHECK — DATE

CONSTRUCTION CHECK DJD 09/25/18 DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK: 28005, LOT: 65 TAX MAP SHEET #50
GEORGETOWN-FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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Ph: 732.974.0198 • Fax: 732.974.3527
8 Robbins Street, Suite 102, Toms River, New Jersey 08753
Ph: 732.974.0198 • Fax: 732.974.3527
1301 Central Expressway South, Suite 210, Allen, TX 75013
T: 972.534.2100
14521 Old Katy Road, Suite 250, Houston, TX 77079
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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: CONSTRUCTION DETAILS

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 69 OF 77 — Rev. #: 16

Plotted: 11/06/19 – 1:52 PM By: bgaudin
File: P:\DESPC PROJECTS\0043 Shorbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\(dwg)\Site Plans\0431401SSD16.dwg, ---> 69 CONSTRUCTION DETAILS

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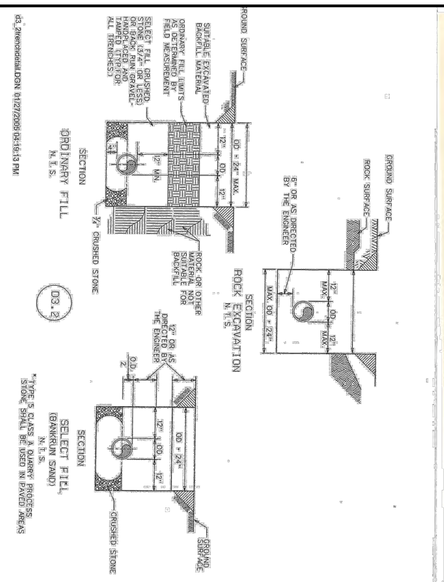
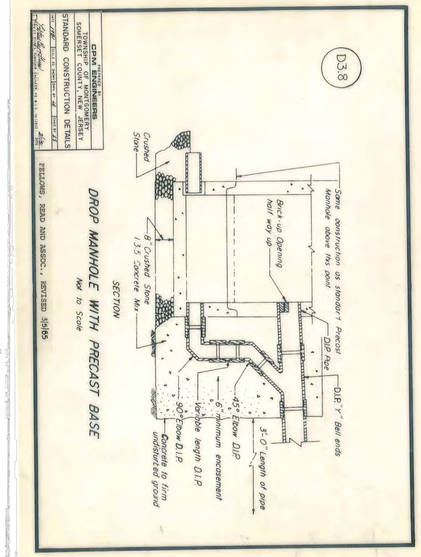
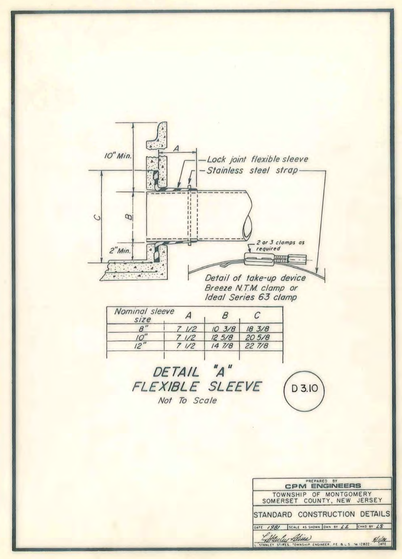
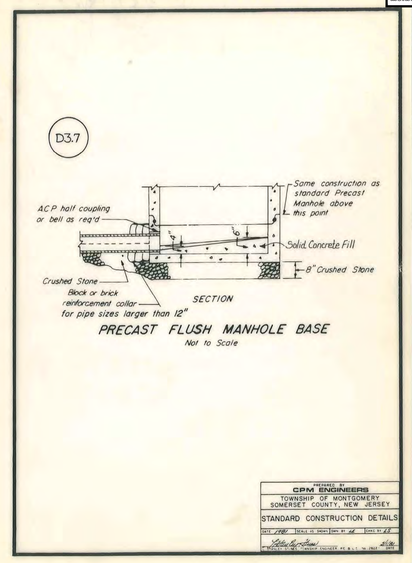
MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERSEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE

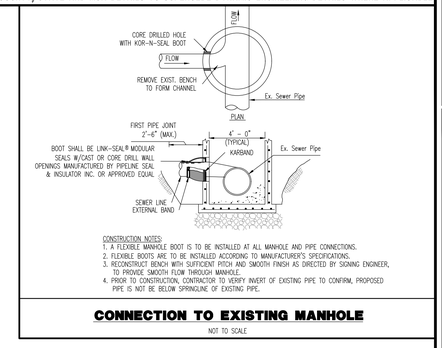






Nominal sleeve size	A	B	C
8"	7 1/2	10 3/8	18 3/8
10"	7 1/2	12 5/8	20 5/8
12"	7 1/2	14 7/8	22 7/8





CONSTRUCTION NOTES:
1. A FLEXIBLE MANHOLE BOOT IS TO BE INSTALLED AT ALL MANHOLE AND PIPE CONNECTIONS.
2. FLEXIBLE BOOTS ARE TO BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
3. RECONSTRUCT BENCH WITH SUFFICIENT PITCH AND SMOOTH FINISH AS DIRECTED BY SIGNING ENGINEER, TO PROVIDE SMOOTH FLOW THROUGH MANHOLE.
4. PRIOR TO CONSTRUCTION, CONTRACTOR TO VERIFY INVERT OF EXISTING PIPE TO CONFIRM, PROPOSED PIPE IS NOT BE BELOW SPRINGLINE OF EXISTING PIPE.

CONNECTION TO EXISTING MANHOLE

NOT TO SCALE

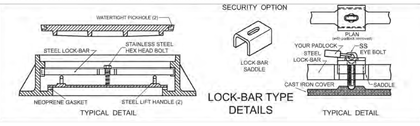
Locking Methods For Watertight Manholes

Lock-Bar Type units are made watertight by inserting a neoprene gasket under the inner cover at the lower seat of the frame. Pressure is then applied to the cover by tightening a 1"-#8 stainless steel hex bolt which is inserted through the steel lock-bar. The steel lock-bar is prevented from further upward motion by the upper seat of the frame and two stops in the sidewall. Additionally, the outer cover will have non-penetrating pickhole(s) for reduced inflow.

When ordering a new lock-bar type watertight manhole for use where security is a concern, specify our lock-bar saddle. The saddle is used in conjunction with your padlock. When retrofitting a previously installed lock-bar type watertight manhole which has a hex head bolt installed, the hex bolt must be replaced with a stainless steel eye bolt. The saddle will be supplied with a stainless steel eye bolt in this circumstance.

The saddle is installed by slipping it over the eye bolt, then straddling and resting on the steel lock-bar. Your padlock is then inserted through the eyebolt and secured. With the exception of padlocks, these manholes are shipped assembled.

See details below. For assistance in ordering this device please contact our Sales Department.

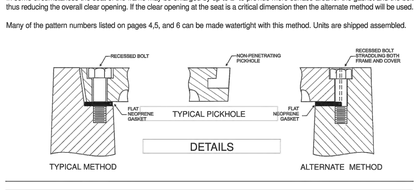


Heavy Duty Watertight Manhole Frames and Covers

Bolted Type units are made watertight by bolting and gasketing the cover to the frame with recessed stainless steel hex head bolts. The number of bolts used is determined by the size of the cover. A watertight seal is accomplished with non-penetrating pickholes in the cover and by fitting a flat neoprene gasket to the seat of the frame.

In some circumstances the seat of the frame may be enlarged by up to 2" to provide more surface area for the gasket and the bolt thus reducing the overall clear opening. If the clear opening at the seat is a critical dimension then the alternate method will be used.

Many of the pattern numbers listed on pages 4,5, and 6 can be made watertight with this method. Units are shipped assembled.



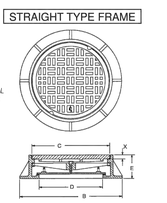
SEE MANHOLE FRAME AND COVER DETAIL

10 CAMPBELL FOUNDRY COMPANY Ph.: 973-483-5480 Fax: 973-483-1843
sales@campbellfoundry.com sales@campbellmaterials.com

SANITARY SEWER MH #33 FRAME DETAIL

Heavy Duty Watertight Manhole Frames and Covers

PATTERN NUMBER	DIMENSIONS IN INCHES A	B	C	D	E	X
6502	38 ¼	36 ¼	21	8	1 ¼	
6530	34	24	22	7	1 ¼	
6536	34	24	16	7	1 ¼	
6539	34	25 ¼	21	8	1 ¼	
6540	38	25 ¼	21	8	1 ¼	
6541	35 ¼	27 ¼	23 ¼	7	1 ¼	
6542	39	28 ¼	24	7	1 ¼	
6544	39	30	24	6 ¼	1 ¼	
(6545)	39	30	24	8	1 ¼	
6547	43	31 ¼	24	8	1 ¼	
6548A	40	28	24	8	1 ¼	
6548	44 ¼	36	30	8	1 ¼	
6549	48	37 ¼	33	8	1 ¼	
6552	43	31 ¼	27	8	1 ¼	
6553	43	31 ¼	27	6 ¼	1 ¼	



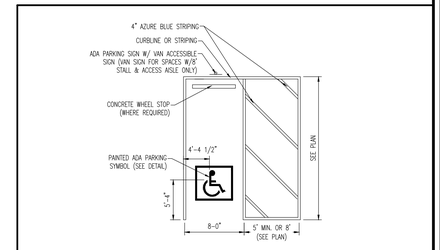
All castings supplied with:

1. flat neoprene gasket
2. Steel lock bar (See previous page for Lock Option)
3. Stainless Steel Hex Head bolt
4. Covers supplied with non-penetrating pickholes.

CAMPBELL FOUNDRY COMPANY Ph.: 973-483-5480 Fax: 973-483-1843
sales@campbellfoundry.com sales@campbellmaterials.com

11

SANITARY SEWER MH #33 DETAIL



NOTES:
1. PAVEMENT STRIPING FOR ALL ADA PARKING SPACES SHALL BE PAINTED AZURE BLUE.
2. WHERE AN ADA PARKING STALL MEETS A STANDARD PARKING STALL, AN AZURE BLUE AND WHITE PAVEMENT STRIPE SHALL BE PAINTED.
3. ALL PAVEMENT STRIPING, MARKINGS AND SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADA ACCESSIBILITY GUIDELINES.

ADA STALL MARKINGS DETAIL

NOT TO SCALE

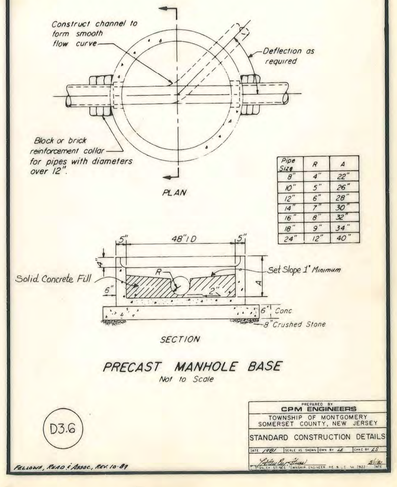
GENERAL NOTES FOR

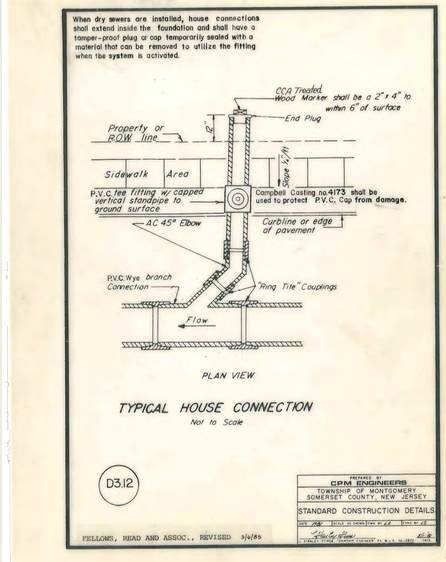
P.V.C. SEWER CONSTRUCTION

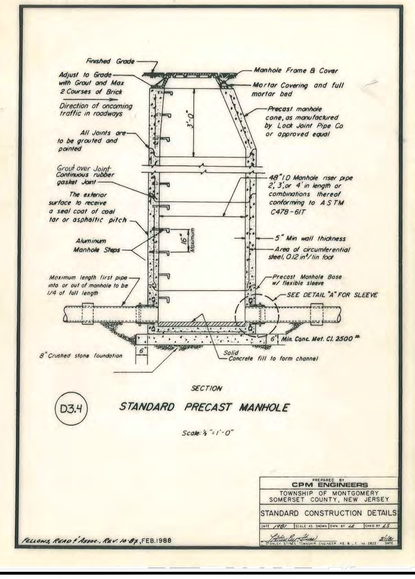
1. All 8" PVC pipe and fittings shall be SDR 35 and shall conform to ASTM-D3034. The poly vinyl chloride compounds for pipe shall have a cell classification of 12454-B or 13364-B (with minimum tensil modulus of 500,00 psi) as defined in ASTM-D1784. Maximum lengths of pipe shall be thirteen (13') feet.
2. Pipe joints shall be integral bell gasketed joints which when assembled, form a positive seal. The joints shall be designed in accordance with ASTM-D3211 and the lubricant used for assembly shall be as provided or recommended by the pipe manufacturer and shall have no detrimental effect on the gasket or the pipe.
3. All fittings including wyes and tees and pipe lubricant shall be made by the same manufacturer as the sewer main pipe.
4. In addition to air testing, a mandrill test will be performed to insure that a no greater than 5% deflection has occurred in the sewer main. Deflections greater than 5% will require the removal and reinstallation of the section of pipe failing the test.
5. PVC pipe shall be delivered to the site in banded pallet loads only. The bands shall not be removed until that pipe is ready for installation. Unbanded pipe not immediately installed has the tendency to warp beyond repair.
6. Manhole connections will be made with a flexible sleeve precast in the manhole or with an A.C. material manhole adapter.

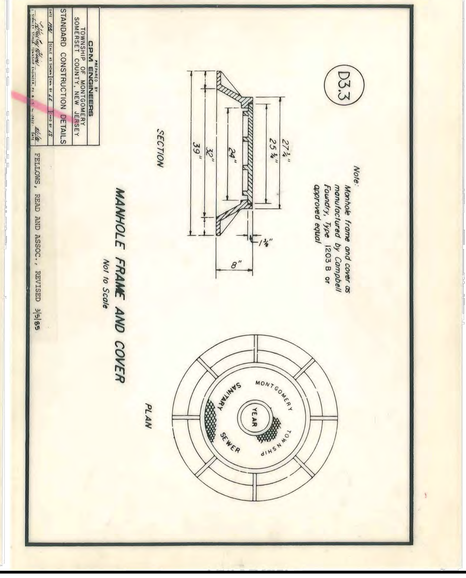
D3.15

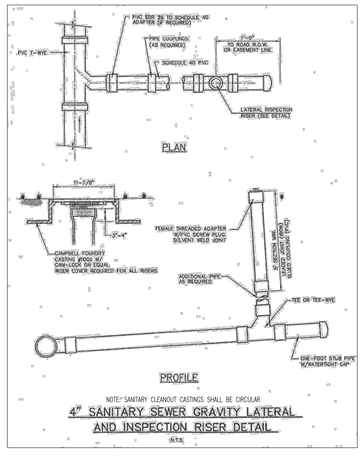
TOWNSHIP OF MONTGOMERY
SOMERSET COUNTY, NEW JERSEY
STANDARD CONSTRUCTION DETAIL
PREPARED BY
FELLOWS, READ AND ASSOC







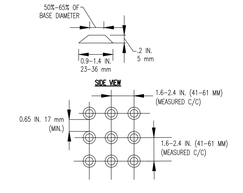




NOTE: SANITARY CLEANOUT CASTINGS SHALL BE CIRCULAR

4" SANITARY SEWER GRAVITY LATERAL AND INSPECTION RISER DETAIL

N.T.S.

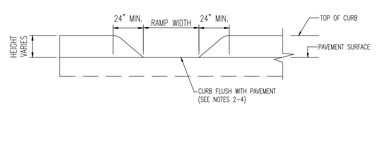


NOTES:
1. DETECTABLE WARNINGS SHALL BE A PRE-MANUFACTURED ARMOUR TILE TACTILE SYSTEM OR APPROVED EQUIVALENT.
2. WARNING SURFACE SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT PER LATEST A.D.A. ACCESSIBILITY GUIDELINES.
3. CONTRACTOR TO COORDINATE SPECIFIC SYSTEM AND MATERIALS UTILIZED WITH THE ENGINEER TO ENSURE LOCAL, STATE AND A.D.A. COMPLIANCE PRIOR TO CONSTRUCTION.
4. DETECTABLE WARNING SURFACE SHALL BE IN ACCORDANCE WITH THE LATEST ADA ACCESSIBILITY GUIDELINES.

UVM - 0600

TRUNCATED DOME PATTERN FOR A.D.A. DETECTABLE WARNING SURFACE

NOT TO SCALE



NOTES:
1) WHERE A PEDESTRIAN CIRCULATION PATH CROSSES THE CURB RAMP, FLARE SIDES SHALL BE PROVIDED AT A SLOPE NO STEEPER THEN 1:10.
2) CONSTRUCT DEPRESSED CURB FOR CURB RAMPS FLUSH TO ADJACENT PAVEMENT. GRADE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL TURNING SPACES BEHIND DEPRESSED CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE.
3) CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.
4) COUNTER SLOPES OF ADJOINING GUTTERS AND PAVEMENT SHALL NOT BE STEEPER THAN 1:20 WITH A MAX. CROSS SLOPE OF 2%.
5) A LEVEL LANDING AREA (MAX. SLOPE 2% IN ANY DIRECTION) SHALL BE PROVIDED AT THE TOP OF THE RAMP. THE LANDING CLEAR LENGTH SHALL BE 36" MIN AND THE CLEAR WIDTH SHALL BE AS WIDE AS THE RAMP.
6) CURB RAMPS, PAVEMENT MARKINGS & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

TYPICAL ELEVATION FOR DEPRESSED CURB DETAIL

NOT TO SCALE

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Plotted: 11/06/19 – 1:53 PM, By: bgrubin
File: P:\DEDPC PROJECTS\0043 Shorbell Development\14-015 Research Rd & Georgetown – Franklin TPK\Dwg\Site Plans\0431401550516.dwg, ----> 70 CONSTRUCTION DETAILS

DYNAMIC
• ENGINEERING • EARTH
• SURVEY • TRAFFIC

NO.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJW
15	09/03/19	REV. PER COUNTY COMMENTS	AJW
14	07/17/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BSC
12	05/07/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JDS
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW
10	02/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/BSC
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/BSC
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/BSC
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/BSC
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/BSC
5	07/17/18	REV. PER TOWNSHIP & DRCC COMMENTS	AJW
4	06/13/18	REV. PER RESOLUTION COMPLIANCE	AJW/BSC
3	04/19/18	REV. PER TOWNSHIP, SCD & DRCC COMMENTS	AJW/BSC
2	02/26/18	REV. PER COUNTY COMMENTS	BSC
1	01/16/18	REV. PER COUNTY COMMENTS	AJW
REV.	DATE	COMMENTS	BY

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18
CONSTRUCTION CHECK DATE

– –
CONSTRUCTION CHECK DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 65; TAX MAP SHEET #50
6101 GEORGETOWN-FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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Ph: 732.974.0198 • Fax: 732.974.5321
8 Robbins Street, Toms River, New Jersey 08753
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T: 972.534.2100
14521 Old Katy Road, Suite 250, Houston, TX 77079
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901 Mopac Expressway South, Barton Oaks Plaza One, Suite 300, Austin, TX 78746
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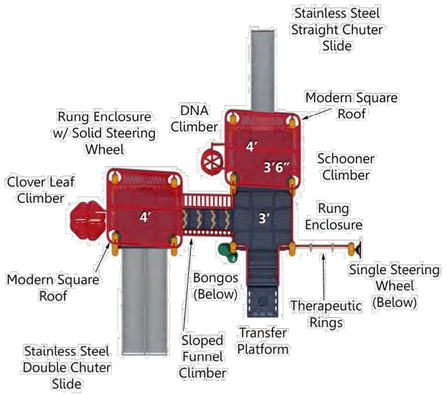
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **CONSTRUCTION DETAILS**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No:			CHECKED BY:
0043-14-015			JDS

SHEET No: **70** OF 77 Rev. #: 16



GameTime — Charwood

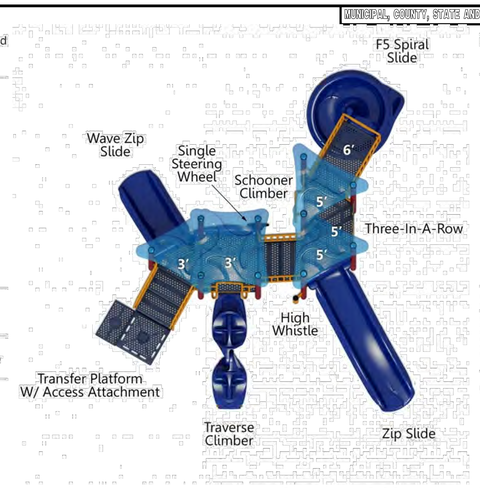
PowerScape playground systems are continuous/6 Hole/Rotary Buoy Materials, and are backed by the industry's leading warranty. PowerScape systems are designed to provide the highest capacity of any playground with an industry leading anti deck.

Features and Benefits:

Model: PS15300
Size Zone: 30' X 35'
Fall Height: 5'
Age Group: 2 to 5 Years
Age Group: 5 to 12 Years
Number of Children: 35-40

Limited Lifetime Warranty on uprights, hardware and connections. Visit gametime.com/warranty for full warranty information.

GAMETIME 'CHARWOOD' EQUIPMENT DETAIL
NOT TO SCALE



GameTime — Giggle Hill

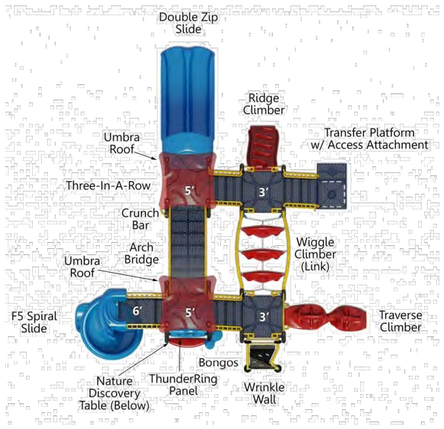
Play Value! PrimeTime is the choice of schools, childcare centers and communities who want to maximize value and create play spaces that provide fun and challenging activities along a developmental continuum. The result? Footprint of PrimeTime reduces cost, and a wide range of play components provide the maximum amount of play opportunities.

Features and Benefits:

Model: PTT18007
Size Zone: 30' X 26'
Fall Height: 6'
Age Group: 5 to 12 Years
Number of Children: 30-35

Limited Lifetime Warranty on uprights, hardware and connections. Visit gametime.com/warranty for full warranty information.

GAMETIME 'GIGGLE HILL' EQUIPMENT DETAIL
NOT TO SCALE



GameTime — Twilight

Play Value! PrimeTime is the choice of schools, childcare centers and communities who want to maximize value and create play spaces that provide fun and challenging activities along a developmental continuum. The result? Footprint of PrimeTime reduces cost, and a wide range of play components provide the maximum amount of play opportunities.

Features and Benefits:

Model: PTT18030
Size Zone: 30' X 35'
Fall Height: 6'
Age Group: 5 to 12 Years
Number of Children: 30-35

Limited Lifetime Warranty on uprights, hardware and connections. Visit gametime.com/warranty for full warranty information.

GAMETIME 'TWILIGHT' EQUIPMENT DETAIL
NOT TO SCALE

Swings

Austin Swing Bench, 46" - 72" backed, end arms, aluminum/wood seating, 102" - 126" Suspension Hangers with Box Beam (A) Clamps
Special Product Drawing

Date: 10/06/2017
www.landscapeforms.com Ph: 800.521.2546

IT IS THE RESPONSIBILITY OF THE CLIENT TO DESIGN THE SWING SUPPORT STRUCTURE PER THE NOMINAL LOADS SHOWN ON THE STRUCTURAL ENGINEERING DRAWING: AU999-06099-A.

THE CONNECTION HARDWARE WILL BE PROVIDED BY LANDSCAPEFORMS.

BENCH/SWING ARM WEIGHT: 300 lbs.
BENCH SEATING CAPACITY: 900 lbs. (MAX LIVE LOAD)

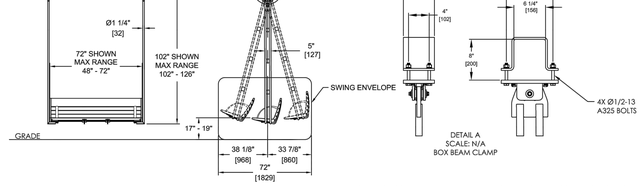
AUSTIN SWING BENCH SUSPENSION KIT (AUSPECA) ***SOLD SEPARATELY FROM SWING BENCH***

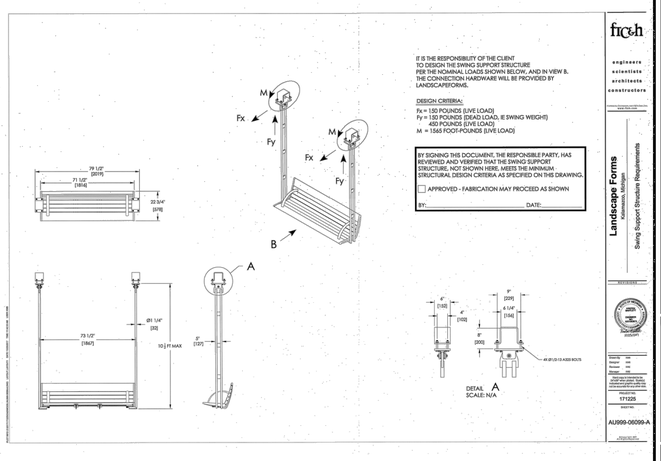
WOOD OR ALUMINUM INSERT

APPROVED
REVISE AND RESUBMIT
REJECTED

COMMENTS MADE ON THESE SUBMITTALS ARE FOR INFORMATION ONLY. ANY CHANGES REQUIRE RE-SUBMITTAL AND APPROVAL. CUSTOMER IS RESPONSIBLE FOR CONFIRMING ALL QUANTITIES, DIMENSIONS, AND INSTALLATION TECHNIQUES.

BY: _____ DATE: _____





landscapeforms — Drawing: AU9991A
Dimensions are in inches [mm]

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SWINGING BENCH DETAIL
NOT TO SCALE

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PARC VUE

Product Data Sheet

The landmark collection was inspired by familiar themes in historic design, architecture and nature. Designer John Rizzi took his inspiration from traditional cast iron furniture and asymmetric patterns in nature. The Parc Vue bench achieves a delicate balance between the strength and lively gesture of its frame and the perceived lightness and linear order of its slatted seat. It is a sculptural form that has what Rizzi calls "traditional roots and its own dynamic presence." In the comparison curved and mesh-caged Parc Vue litter receptacle, the designer combines historic reference and contemporary manufacture in an elegant utilitarian object suited to a variety of settings in urban environments.

Bench

- Horizontal strap seat style is standard for backed or backless benches.
- Bench is available in 72" length.
- End arms are available for backed bench and are welded to the end frame.
- Support end frames are of 3/4" steel.
- Seating surface is made of horizontal steel straps (1-1/2" x 3/16"), which are welded to the end frames.
- Parc Vue bench may be specified freestanding with glides or surface mount with anchor tabs.

	STYLE	DEPTH	WIDTH	HEIGHT	PRODUCT WEIGHT
	backless	22"	72"	18"	101 lb
	backed	25"	72"	36"	160 lb
	backed with arms	25"	72"	36"	173 lb

Litter Receptacles

- Receptacles with liner have 30 gallon capacity; 40 gallon without liner.
- Cast iron base and wire mesh basket comes standard in all powdercoat colors.
- Top-opening or side-opening lid available in rotationally molded polyethylene, and attaches to basket with cable.
- Optional polyethylene urn-shaped liner and lid come in two standard colors (log and black) to coordinate with wire mesh basket.
- Base has a center hole for optional surface mounting.
- Contact your Landscape Forms representative for details on clear plastic bag option.

	STYLE	DIAMETER	HEIGHT	PRODUCT WEIGHT
	side-opening	22"	43"	72 lb
	top-opening	22"	36"	71 lb

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PARC VUE

Product Data Sheet

Finishes

- Metal is finished with Landscape Forms' proprietary Pangard II® polyester powdercoat, a hard yet flexible finish that resists rusting, chipping, peeling and fading.
- Call for standard color chart.

To Specify

- Bench: Specify bench model, backless or backed.
- If backed, choose with or without end arms.
- Select freestanding or surface mount, and powdercoat color.
- Litter: Select top or side-opening litter, and with or without liner.
- Specify top and liner color, select powdercoat color for metal basket and base.

Designed by John Rizzi
Parc Vue designs are protected by U.S. Patent Nos. D528,831; D548,916; D532,630; D534,021

Visit our landscapeforms.com for more information. Specifications are subject to change without notice. Landscape Forms supports the Landscape Architecture Foundation at the Second Century level.
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AUSTIN

Product Data Sheet

Austin blends modernist inspiration into a new interpretation that's as timely as today. The Austin Bench, designed by landscape architect Robert Chipman, is a study in beautiful balance. Inspired by architecture of the 20s and classic modern furniture of the 50s, it expresses familiar themes in thoroughly contemporary terms. Austin balances lightness and substance, is relaxed, yet refined, poised but never boring. The cantilever version is a natural for minimalist spaces, the four-legged version a fine fit within a range of architectural styles. Composed of minimal parts, [just two extrusions create the seat and back in all versions] Austin masters the details, from its tapered slats to the lovely winged shape of its end piece. In aluminum or wood Austin is a high-design solution — and a breath of fresh air — for corporate and healthcare courtyards, atria, small-scale public places, and private retail space.

Seat

- Austin benches are available in backed or backless, and in a selection of interior and exterior woods, as well as aluminum extruded boards.
- Unique cantilever style or freestanding/surface mount supports are cast iron.

Arm Options

- Optional arms may be added to both ends, as well as the center position.
- Arms are available for either backed or backless benches.
- All arms are cast aluminum and attached to the seat boards.

Mounting Options

- Austin benches with freestanding/surface mount supports ship with glides which may be removed for surface mounting.
- All cantilever supports must be surface mounted into concrete.

	STYLE	DEPTH	WIDTH	HEIGHT	PRODUCT WEIGHT
	cantilever backed	23"	72"	33"	Alum: 116 lb Wood: 150 lb
	cantilever backed	22"	72"	18"	Alum: 89 lb Wood: 120 lb
	Freestanding/ Surface Mount backed	24"	72"	33"	Alum: 120 lb Wood: 150 lb
	Freestanding/ Surface Mount backless	22"	72"	18"	Alum: 93 lb Wood: 90 lb
ARM OPTIONS					
end and center position		end arms			
MOUNTING OPTIONS					
cantilever backed		cantilever backless		freestanding / surface mount	

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AUSTIN

Product Data Sheet

Litter Receptacles

- Top and side opening litters are available with or without lock.
- With a 34 gallon capacity, litter can be freestanding or surface mount.
- Fabricated with carbon steel body panels, cast aluminum top, and cast iron base.
- Litter is finished with exclusive Pangard II® powdercoat finish.
- Black polyethylene liner comes standard with litter.
- Shipped with freestanding glides that remain in place for surface mounting.
- Litter ships fully assembled.

	STYLE	DIAMETER	HEIGHT	PRODUCT WEIGHT
	Top-Opening	24"	35"	172 lb
	Side-Opening	24"	42"	186 lb

Finishes

- All metal is finished with Landscape Forms' proprietary Pangard II® polyester powdercoat, a hard yet flexible finish that resists rusting, chipping, peeling, and fading.
- Call for standard color chart.

To Specify

- Select top or side-opening litter. Specify with or without lock.
- Select powdercoat color.

Designed by Robert Chipman, ASLA
Austin design is protected by U.S. Patent Nos. D481,210, D481,211, D482,885, D483,960

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16	11/01/19	REV. PER FIELD CHANGES	AJW
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14	07/11/19	REV. PER COUNTY COMMENTS	AJW
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4	06/25/18	REV. PER COUNTY COMMENTS	AJW/BSC
3	04/19/18	REV. PER TOWNSHIP, BCA & BRSC COMMENTS	AJW/BSC
2	01/16/18	REV. PER COUNTY COMMENTS	BSC
1	12/20/17	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	AJW
REV.	DATE	COMMENTS	BY

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18 — CONSTRUCTION CHECK DATE
— — CONSTRUCTION CHECK DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 65, TAX MAP SHEET #50
GEORGETOWN ROAD & ROCKY HILL ROAD & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

Landscape Forms — Swing Support Structure Requirements — Kalamazoo, Michigan

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NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **CONSTRUCTION DETAILS**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No:			CHECKED BY:
0043-14-015			JDS

SHEET No: 71 OF 77 — Rev. #: 16

Plotted: 11/06/19 – 1:53 PM, By: bgaudin
File: P:\DEPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\0431401SSD16.dwg, ---> 71 CONSTRUCTION DETAILS

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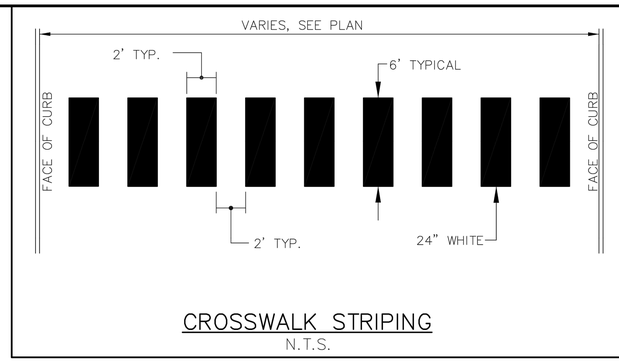


CROSSWALK STRIPING
N.T.S.

RETAINING WALL GENERAL NOTES

1. THIS DRAWING IS FOR THE CONSTRUCTION OF THE CAST-IN-PLACE REINFORCED CONCRETE EXTENDED CURB ONLY.
2. THE CONTRACTOR, MATERIALS, AND WORKMANSHIP SHALL COMPLY WITH THE REQUIREMENTS OF THE CONSTRUCTION CODE OF THE MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY LATEST EDITION AND ALL APPLICABLE FEDERAL AND STATE CODES, STANDARDS, REGULATIONS, AND LAWS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS, AND COORDINATE WITH ALL CONTRACT DRAWINGS, PROJECT SHOP DRAWINGS AND FIELD CONDITIONS PRIOR TO CONSTRUCTION. IF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND DESIGN PLANS ARISE, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
4. THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES, AND UTILITY LINES FROM ALL DAMAGE.
5. JOB SAFETY AND CONSTRUCTION PROCEDURES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION OF ALL EXCAVATION SLOPES, WHERE NECESSARY, SHEETING AND SHORING OF EXCAVATION SHALL BE PROVIDED WITH ALL REQUIRED TIE BACKS AND BRACING. METHODS EMPLOYED IN ALL SHEETING AND SHORING SHALL BE DESIGNED BY THE CONTRACTOR'S PROFESSIONAL ENGINEER LICENSED IN THE PROJECT'S STATE.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING OF EXCAVATIONS WHERE NECESSARY.
8. THE CONTRACTOR SHALL HAVE DYNAMIC EARTH LLC ON SITE TO INSPECT FILL, MONITOR FILL COMPACTION, VERIFY SUBGRADE ALLOWABLE BEARING CAPACITY, AND SOIL DESIGN CRITERIA PRIOR TO CONSTRUCTION IN ACCORDANCE TO THE DESIGN ASSUMPTIONS STATED IN THE CONTRACT DOCUMENTS. UNSUITABLE MATERIALS FOUND SHALL BE REMEDIED AS PER THE DIRECTION OF THE ON SITE GEOTECHNICAL ENGINEER.
9. DYNAMIC EARTH LLC SHALL PERFORM THE CONTROLLED INSPECTIONS ACCORDING TO GOVERNING BUILDING CODES AND AS DETAILED HEREIN ON THESE PLANS.
10. IF CONDITIONS IN THE FIELD ARE DIFFERENT THAN THOSE INDICATED ON THE CONTRACT DOCUMENTS OR DESIGN CALCULATIONS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
11. NO REVISIONS, ALTERNATES, OR SUBSTITUTIONS TO THE CONTRACT DOCUMENTS ARE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
12. THE DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS.

GENERAL FOUNDATION NOTES

1. STRUCTURAL CONCRETE AND CONCRETING PRACTICES SHALL CONFORM WITH ACI-318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE." DETAILS SHALL BE IN ACCORDANCE WITH ACI-315, "MANUAL OF STANDARD PRACTICE: DETAILS AND DETAILING OF CONCRETE REINFORCEMENT." FORMWORK SHALL CONFORM WITH ACI-347, "GUIDE TO FORMWORK FOR CONCRETE," UNLESS OTHERWISE NOTED ON THE CONTRACT DOCUMENTS.
2. CONCRETE SHALL BE NORMAL WEIGHT STONE AGGREGATE WITH A MINIMUM COMPRESSIVE STRENGTH OF NJDOT CLASS 'B' 3,700 PSI AT 28 DAYS. ALL DESIGN MIXES SHALL BE PROPORTIONED IN ACCORDANCE TO SECTION 5.3, "PROPORTIONING ON THE BASIS OF FIELD EXPERIENCE AND/OR TRIAL MIXTURES" OF ACI-318. THE WATER-CEMENT RATIO FOR THE PROPOSED MIX DESIGN SHALL ACHIEVE AN AVERAGE 28-DAY STRENGTH OF 1,200 PSI GREATER THAN THE REQUIRED STRENGTH ON LABORATORY TEST RESULTS. ALL DESIGN MIXES INCLUDING HISTORICAL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
3. CONCRETE SHALL HAVE A SLUMP NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
4. EXPOSED CONCRETE SHALL BE AIR ENTRAINED, 6% (WITHIN 1% TOLERANCE), CONFORMING TO ASTM C 260.
5. CONCRETE SHALL BE CONSOLIDATED IN PLACE USING AN INTERNAL VIBRATOR.
6. REINFORCING STEEL BARS SHALL BE BILLET STEEL CONFORMING TO ASTM A 615, GRADE 60. ALL REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS OR STIRRUPS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL BARS. BAR SUPPORTS IN CONTACT WITH EXPOSED SURFACES SHALL BE PLASTIC TIPPED. ALL ACCESSORIES SHALL BE GALVANIZED. ALL REINFORCEMENT TO BE HOT DIP GALVANIZED.
7. ALL SPLICES OF REINFORCING BARS NOT INDICATED ARE TO BE LTS AS PER THE REINFORCING SPLICE SCHEDULE OR 40 BAR DIAMETERS. DISCONTINUOUS ENDS OF CONTINUOUS BARS SHALL BE STANDARD HOOKS.
8. SHOP DRAWINGS OF REINFORCING TO BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION AND ORDERING OF MATERIAL. SHOP DRAWINGS SHALL SHOW ALL REINFORCEMENTS, SPLICE LENGTHS, BAR LENGTHS, BEND SCHEDULES, AND CONCRETE DIMENSIONS. REINFORCING LAYERS SHALL BE SHOWN SEPARATELY ON SHOP DRAWINGS.
9. CONCRETE FIELD TESTS SHALL BE PERFORMED AS REQUIRED BY GOVERNING CODES BY DYNAMIC EARTH LLC. TESTS SHALL NOT BE TAKEN LESS THAN ONCE A DAY OR LESS THAN ONCE PER 50 CUBIC YARDS OF CONCRETE. NO LESS THAN 5 TEST CYLINDERS ARE TO BE TAKEN TO OBTAIN 7-DAY AND 28-DAY AVERAGE COMPRESSIVE STRENGTHS.
10. ALL HOLES OR PENETRATIONS OF WALL (SNAP-TIES, ETC.) SHALL BE FILLED AND FINISHED TO PROVIDE A CONSISTENT SURFACE FINISH.

RETAINING WALL DESIGN NOTES

1. SUITABLE BACKFILL MATERIAL SHALL BE COMPACTED IN 12" LOOSE LIFTS TO 95% MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM D 1557 TEST PROCEDURE. SEE GEOTECHNICAL REPORT.
2. BACKFILL ON LOW SIDE OF WALL TO BE COMPLETED BEFORE BACKFILLING ON HIGH SIDE OF WALL.
3. SPLICES FOR VERTICAL BARS, IF REQUIRED, SHALL BE LOCATED AS CLOSE TO THE TOP OF WALL AS POSSIBLE.
4. BRACE ALL WALLS DURING CONSTRUCTION TO PREVENT DAMAGE FROM WIND, WATER, EARTH PRESSURE AND CONSTRUCTION LOADS UNTIL ALL SUPPORTING ELEMENTS ARE IN PLACE AND OF SUFFICIENT STRENGTH.
5. LOCATIONS OF CONSTRUCTION, CONTRACTION, & EXPANSION JOINTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION AND ORDERING OF MATERIAL.

RETAINING WALL DESIGN CRITERIA

SUBGRADE MAXIMUM ALLOWABLE SOIL BEARING PRESSURE = 2,000 PSF (ASSUMED)

SOIL FRICTION ANGLE = 30 DEGREES (ASSUMED BACKFILL MATERIAL)

MAXIMUM SOIL UNIT WEIGHT = 125 PCF (ASSUMED BACKFILL)

SURCHARGE: LL = 75 PSF + DL = 50 PSF = 125 PSF (PEDESTRIAN LOAD PER AASHTO LRF DESIGN SPECIFICATION SECTION 3.6.1.6)

DESIGN BASED ON LFRD METHODOLOGY

DESIGN SPECIFICATION IN ACCORDANCE WITH NJDOT MANUAL FOR BRIDGES & STRUCTURES 6TH EDITION.

CONSTRUCTION SPECIFICATIONS IN ACCORDANCE WITH NJDOT SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.

MATERIAL DESIGN STRESSES NJDOT CLASS 'B' CONCRETE ASTM A615 GRADE 60.

SOMERSET COUNTY SIGNAGE & STRIPING NOTES

1. The Somerset County Traffic Division is to be notified at (909) 231-7162 a minimum of 72 hours prior to the installation of any striping within a County right-of-way. The notification is to be made by the contractor who will install the striping.
2. Prior to installing any striping in the County right-of-way the striping contractor must receive approval from the County Traffic Division for the "Mark Out" of all striping.
3. All pavement markings shall be alkyd-type thermoplastic with a thickness of 90 mils.
4. There shall be a 6-inch space between all double yellow stripes.
5. All existing striping and pavement reflectors that do not conform to the proposed striping pattern are to be removed by a method that does not damage the roadway surface. "Black Out" paint will not be permitted.
6. All permanent signs shall be a flat aluminum sheet of 6061-T6 alloy with a thickness that shall conform to subsection 911.01.02A of the New Jersey Department of Transportation Standard Specifications of 2007.
7. All permanent signs are to be mounted on galvanized square tube steel supports of the "Telespar System" by the Unistrut Corporation and only Type III Breakaway units shall be used or equal as approved by the County Engineer.
8. All "Stop" signs (R1-1) are to be a minimum 30-inch diameter.
9. The street name sign is to be located on the opposite corner from the "Stop" sign (R1-1).
10. Sign facings shall be "Wide Angle Prismatic Retroreflective Sheeting for Visual Impact Performance" manufactured by 3M Brand Scotchlite Prismatic Lens Reflective Sheeting (Diamond Grade^3) or equal as approved by the County Engineer.
11. All traffic control devices shall conform to the current "Manual on Uniform Traffic Control Devices for Streets and Highways".

CURB RAMP NOTES - SOMERSET COUNTY

LAYOUT NOTES

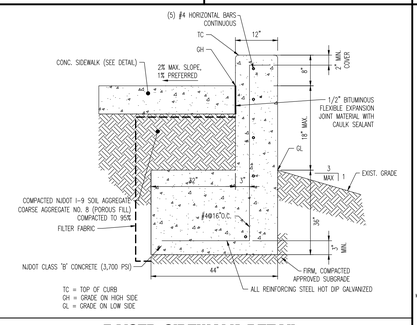
1. IN THE LAYOUT OF CURB RAMP ALTERATIONS, IT IS THE INTENSION THAT:
   - A. THE NOTES AND DETAILS HEREIN ARE TO SUPPLEMENT THE NJDOT STANDARD DETAILS AND NOTES.
   - B. HORIZONTAL LOCATION OF CURB RETURN TO REMAIN AS CLOSE TO EXISTING LOCATION AS FEASIBLE.
   - C. THE MAXIMUM CURB HEIGHT AROUND THE CURB RETURN IS 4" HIGH UNLESS OTHERWISE PROVIDED.
   - D. CURB REPLACEMENT TO EXTEND TO NEAREST JOINT.
   - E. SIDEWALK IMPROVEMENTS TO EXTEND TO NEAREST JOINT. IF IT IS A CONSTRUCTION JOINT, THEN THE SIDEWALK SHOULD BE SAWCUT ALONG THE JOINT LINE.
2. FOR NEW CONSTRUCTION AND ALTERATIONS, DO NOT EXCEED 1:50 (2%) CROSS SLOPE ON THE CURB RAMP, LANDING, OR PEDESTRIAN ACCESSIBLE ROUTE. RUNNING SLOPE IS NOT TO EXCEED 1:12 (8.3%) ANY WHERE ALONG THE ACCESSIBLE ROUTE, EXCEPT AS APPROVED BY THE RE.
3. 4'x4' LEVEL LANDINGS (AKA TURNING SPACE) ARE TO BE PROVIDED WHEREEVER TURNING MOVEMENTS WOULD BE MADE BY WHEELCHAIR USERS; LANDINGS CANNOT EXCEED 1:50 (2%) IN BOTH DIRECTIONS. IF THE LANDING IS CONSTRAINED BY CURB OR WALLS ON MORE THAN 2 SIDES, THEN THE WIDTH OF THE LANDING IN THE DIRECTION OF THE CROSSWALK WILL BE 5 FEET.
4. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE. THE SLOPES INDICATED ON THE PLANS SHOW THE MAXIMUM SLOPE ALLOWABLE. SLOPES THAT EXCEED THOSE INDICATED ON THE PLANS WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED. TO AVOID CHASING GRADE INDEFINITELY ON ALTERATION WORK, A MAXIMUM REPLACEMENT LENGTH OF 15' FROM THE CURB FACE MAY BE AN OPTION PERMITTED BY THE RE. THE RE TO ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE AND MUST DOCUMENT THE RAMP BEING TECHNICALLY INFEASIBLE ON THE PROPER FORMS.
5. THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE IS NOT TO EXCEED AN ALGEBRAIC DIFFERENCE OF 11%. THE COUNTER SLOPE OF THE GUTTER OF THE ROAD IS NOT TO EXCEED 5%.
6. FOR CURB RAMPS THAT LEAD TO A SINGLE CROSS WALK, THE RAMP (EXCLUDING THE FLARES) IS TO ALIGN FULLY INSIDE OF THE CROSSWALK MARKINGS. CURB RAMPS SHALL HAVE A MINIMUM 4' X 4' CLEAR SPACE AT THE BOTTOM OF THE RAMP THAT IS WITHIN THE CROSS WALK AREA AND WHOLLY OUTSIDE OF THE TRAVEL LANES OF THE ROADWAYS.
7. THE RE WILL BE MADE AWARE OF ANY CASES WHERE THESE REQUIREMENTS CANNOT BE MET PRIOR TO PAVING OF THE CURB RAMPS. IF THE WORK PROCEEDS WITHOUT NOTICE TO THE RE, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF RECONSTRUCTING THE RAMP.
8. RAMPS AT THE MIDDLE OF CURB RETURNS ARE NOT PREFERED AS THEY DIRECT PEDESTRIANS INTO THE INTERSECTION. THIS TYPE TO ONLY BE REPLACED IN-KIND IF FIRST APPROVED BY THE RE.

R3-7L SIGN DETAIL
NOT TO SCALE

R9-3 SIGN DETAIL
NOT TO SCALE

R9-3BP(L) SIGN DETAIL
NOT TO SCALE

R9-3BP(R) SIGN DETAIL
NOT TO SCALE



RAISED SIDEWALK DETAIL
NOT TO SCALE

NJPDES Municipal Stormwater Management - Phase II

The patented ***Campbell-ERS GRATE PLATE™*** is a cost-effective solution to significantly reducing storm water debris inflow. A RETRO-FIT product made of high-strength Cor-Ten weathering steel capable of withstanding snowplow strikes, the *GRATE PLATE™* is rated at over 60,000 psi conforming to ASTM A588. The *GRATE PLATE™* is securely attached to the existing curb head with cam-action clamps which are available with a security option. *Each GRATE PLATE™* is supplied with a center warning plate advising: 'NO DUMPING - DRAINS TO WATERWAY'

Designs are available for all curb heads, including those found in median barriers, precast concrete heads and curb heads manufactured elsewhere. Custom sizes and shapes are available upon request. U.S. Patent No. 7,128,495

One-Man Installation further reduces costs!

Completed Installation

Field Tested Tough!

TYPE-S STANDARD SIZES READILY AVAILABLE

Medallions are included on each plate. They can be purchased seperately.

3" Diameter Embossed Stainless Steel Medallion Welded In Place

7.62" Embossed Stainless Steel Medallion Welded In Place

THE GUARD RAIL TRASH SCREEN

The ***Campbell-ERS Guard Rail Trash Screen*** helps reduce the amount of debris on our highways or wherever a guard rail system is in use such as parks, parking lots, fields, river, reservoirs, and more. Keeping debris confined to a smaller area helps reduce the expense of removal in both time and effort. It helps keep employees off the roadway and reduces lane closure times - two important safety factors.

Contact us for more information!

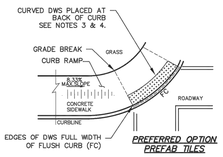
CAMPBELL FOUNDRY COMPANY Ph.: 973-483-5480 Fax: 973-483-1843
sales@campbellfoundry.com sales@campbellmaterials.com

4" TYPE 'S' INLET DETAIL
NOT TO SCALE

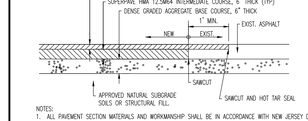
MUNICIPAL, COUNTY, STATE AND MHA DETAILS TO SUPERCEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE

DWS NOTES:

1. PROVIDE DETECTABLE WARNING SURFACES (DWS) 24" MIN. IN THE DIRECTION OF PEDESTRIAN TRAVEL ACROSS THE FULL WIDTH OF THE CURB RAMP. ROADWAY EDGE OF DWS TO BE AT THE BACK OF CURB OR UP TO 6" MAXIMUM FROM THE GUTTER LINE OF THE ROADWAY.
2. PROVIDE DWS COLOR AS INDICATED ON PLANS, THAT CONTRASTS WITH THE PAVED SURFACE COLOR, LIGHT ON DARK OR DARK ON LIGHT.
3. DWS ON CURVED ALIGNMENT CAN USE PREFABRICATED CURVED TILES OR TILES CAN BE CUT. WEDGES TO BE CUT FROM SIDES OF TILES SO THAT THEY CAN SMOOTHLY BE JOINED TO FORM A CURVE WHERE THE FACE OF TILE DOES NOT EXCEED 2" FROM THE BACK OF CURB.
4. SURFACE APPLIED TILES CANNOT BE CUT AND MUST BE ORDERED FOR FULL WIDTH COVERAGE OF RAMPS AND RADIUS OF CURVE.

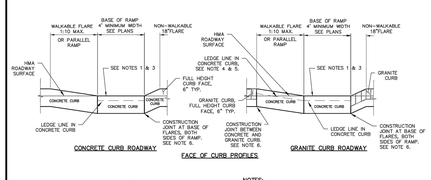


PREFERRED OPTION
PREFAB TILES

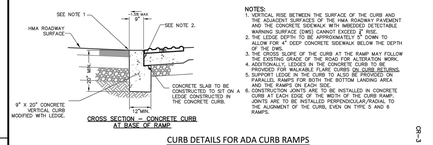


NOTES:
1. ALL PAVEMENT SECTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2007.
2. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO INSPECT AND TEST SUBGRADE SOILS. CONTRACTOR SHALL CONTACT DYNAMIC EARTH, LLC. AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF CONSTRUCTION TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
3. SUBGRADE SOILS SHALL BE APPROVED BY DYNAMIC EARTH, LLC. APPROVED NATURAL SOILS SHALL BE COMPACTED AND PROOFROLLED WITH A LOADED TANDEM AXLE TRUCK TO A FIRM AND UNYIELDING CONDITION. UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL OR STABILIZED AS DIRECTED BY DYNAMIC EARTH, LLC. ANY STRUCTURAL FILL AT OR BELOW PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM-D1557.
4. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTION DESCRIPTION.

ASPHALT PAVEMENT REPAIR DETAIL
NOT TO SCALE



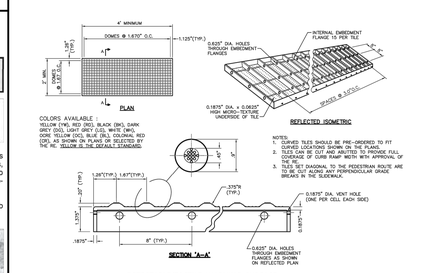
CONCRETE CURB ROADWAY
FACE OF CURB PROFILES
GRANITE CURB ROADWAY



NOTES:
1. VERTICAL RISE BETWEEN THE SURFACE OF THE CURB AND THE ADJACENT SURFACES OF THE HMA ROADWAY PAVEMENT AND THE CONCRETE SIDEWALK WITH IMBEDDED DETECTABLE WARNING SURFACE (DWS) CANNOT EXCEED 2" RISE.
2. THE HMA MUST BE SLOPED APPROPRIATELY TO DOWN TO ALLOW FOR A 1/4" DEEP CONCRETE SIDEWALK BELOW THE DEPTH OF THE DWS.
3. THE CROSS SLOPE OF THE CURB AT THE RAMP MAY FOLLOW THE EXISTING GRADE OF THE ROAD FOR ALTERATION WORK.
4. A MINIMUM 4' X 4' LANDING AREA SHALL BE PROVIDED FOR WALKABLE FLARE CURVED ON CURB RETURNS.
5. SUPPORT LEDGE IN THE CURB TO ALSO BE PROVIDED ON PARALLEL RAMPS FOR BOTH THE BOTTOM LANDING AREA AND THE CONSTRUCTION JOINTS.
6. CONSTRUCTION JOINTS ARE TO BE INSTALLED IN CONCRETE CURB AT EACH EDGE OF THE MOUTH OF CURB RAMP. JOINTS ARE TO BE INSTALLED PERPENDICULAR/RADIAL TO THE ALIGNMENT OF THE CURB, EVEN ON TYPE S AND 4 RAMPS.

CROSS SECTION - CONCRETE CURB AT BASE OF RAMP

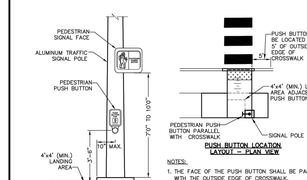
CURB DETAILS FOR ADA CURB RAMPS
N.T.S.



COLORS AVAILABLE
YELLOW (YL), BLACK (BK), DARK GRAY (DG), LIGHT GRAY (LG), WHITE (WH), DORE YELLOW (DG), BLUE (BL), COLONIAL RED (CR), AS SHOWN ON PLANS OR SELECTED BY THE RE. YELLOW IS THE DEFAULT STANDARD.

DETECTABLE/TACTILE WARNING SURFACE
CAST IN PLACE INLINE DOME TACTILE TILE
N.T.S.

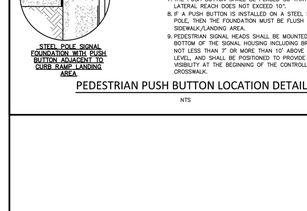
SOMERSET COUNTY A.D.A. DETAILS



COMBINED ALUMINUM TRAFFIC SIGNAL POLE WITH PEDESTRIAN PUSH BUTTON

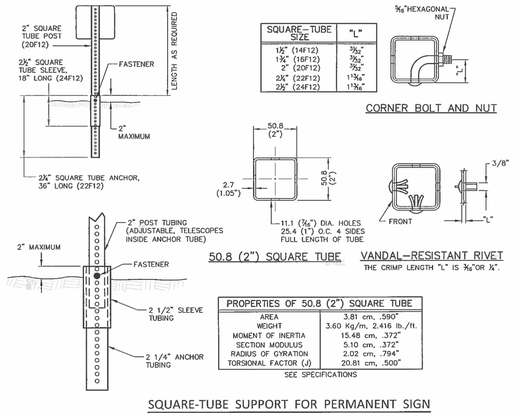
PUSH BUTTON LOCATION LAYOUT - PLAN VIEW

NOTES:
1. THE FACE OF THE PUSH BUTTON SHALL BE PARALLEL WITH THE OUTSIDE EDGE OF CROSSWALK.
2. A MINIMUM 4' X 4' LANDING AREA SHALL BE PROVIDED ADJACENT TO EACH PUSH BUTTON.
3. PUSH BUTTONS SHALL BE LOCATED WITHIN 5" OF THE OUTSIDE EDGE OF THE CROSSWALK.
4. PUSH BUTTONS SHALL BE BETWEEN 1.5' AND 10' FROM THE BACK OF CURB OR EDGE OF ROADWAY, MEASURED IN THE DIRECTION OF TRAVEL. STANDALONE BUSH BUTTON STATIONS SHOULD BE 4' MINIMUM FROM THE BACK OF CURB TO AVOID KNOCKDOWNS.
5. PUSH BUTTONS SHALL BE AT LEAST 10" APART. WHERE THIS IS NOT FEASIBLE AND PUSH BUTTONS ARE INSTALLED LESS THAN 10" APART (I.E. ON THE SAME POLE), EACH PUSH BUTTON SHALL HAVE A PUSH BUTTON LOCATOR TONE, TACTILE ARROW, SPEECH WALK MESSAGE FOR THE WALKING PERSON (SYMBOLIZING WALK) INDICATION, AND SPEECH PUSH BUTTON INFORMATION MESSAGE. SEE THE MUTCD FOR SPEECH MESSAGE STANDARDS.
6. THE CENTER OF THE PUSH BUTTONS SHALL BE INSTALLED AT A HEIGHT OF 42" FROM THE LANDING AREA.
7. THE PUSH BUTTON SHALL BE PLACED SO THAT THE LATERAL REACH DOES NOT EXCEED 10".
8. IF A PUSH BUTTON IS INSTALLED ON A STEEL SIGNAL POLE, THEN THE FOUNDATION MUST BE FLUSH WITH THE SIDEWALK/LANDING AREA.
9. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7' OR MORE THAN 10' ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.



STEEL POLE SIGNAL FOUNDATION WITH PUSH BUTTON ADJACENT TO CURB RAMP LANDING AREA

PEDESTRIAN PUSH BUTTON LOCATION DETAIL
NTS



50.8 (2") SQUARE TUBE

VANDAL-RESISTANT RIVET
THE CRIMP LENGTH "L" IS ⅜"OR ½".

PROPERTIES OF 50.8 (2") SQUARE TUBE	
AREA	3.81 cm, .590"
WEIGHT	3.60 Kg/m, 2.416 lb./ft.
MOMENT OF INERTIA	15.48 cm, .372"
SECTION MODULUS	5.10 cm, .372"
RADIUS OF GYRATION	2.02 cm, .794"
TORSIONAL FACTOR (J)	20.81 cm, .500"

SEE SPECIFICATIONS

SQUARE-TUBE SUPPORT FOR PERMANENT SIGN
N.T.S.

NO.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJW
15	08/05/19	REV. PER COUNTY COMMENTS	AJW
14	07/17/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BSC
12	05/07/19	REV. PER SHEAS EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JL
11	04/22/19	REV. PER TOWNSHIP COMMENTS	AJW
10	03/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/JL
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/JL
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JL
7	10/19/18	REV. PER RESOLUTION COMPLIANCE	AJW/JL
6	09/27/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JL
5	07/17/18	REV. PER TOWNSHIP & SRTC COMMENTS	AJW
4	06/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JL
3	04/19/18	REV. PER TOWNSHIP, SCE & SRTC COMMENTS	AJW/JL
2	03/26/18	REV. PER COUNTY COMMENTS	AJW/JL
1	02/26/18	REV. PER COUNTY COMMENTS	BSC

DYNAMIC
• ENGINEERING • EARTH • SURVEY • TRAFFIC •

COMMENTS: **FINAL FOR SEWER DESIGN**

CONSTRUCTION CHECK: DJD DATE: 09/25/18
CONSTRUCTION CHECK: — DATE: —

PROJECT: SHARBELL BUILDING

THIS PLAN TO BE UTILIZED FOR VEHICLE CIRCULATION PURPOSES ONLY

TAX LOT 102
Capped Fnd.

TAX LOT 162
BLOCK 28003
N/F TAPESTRY AT MONTGOMERY HOA INC.
DB. 6716, PG. 1058

ARH ZONE

PMUD ZONE

1,128.18' (DR1)

Flared End Section

Sanitary Manhole

Type 'B' Inlet

Headwall

OPEN SPACE (STORMWATER MANAGEMENT BASIN)

PROPOSED LOT 2 (82,525 SF)

PROPOSED 40 UNIT CONDOMINIUM BUILDING (23,077 SF)

PROP. HOA LANDSCAPE MAINTENANCE EASEMENT (TOWNSHIP DOES NOT ACCEPT MAINTENANCE RESPONSIBILITY OF LANDSCAPE BED IN VILLAGE DRIVE RIGHT-OF-WAY. THE HOA WILL MAINTAIN THE SAME)

OPEN SPACE (STORMWATER MANAGEMENT BASIN)

(PLAY PARK NORTH)

VILLAGE DRIVE (25' WIDE)

TAX LOT 211
BLOCK 28003
N/F SHARBELL PLAINSBORO INC
DB./PG. N/A

L=214.49'
R=630.00'
D =19°30'36"
CB=S26°39'58"E
CB=202.96'

HARTWICK DRIVE (50' ROW WIDTH PER TAX MAP)

ARH ZONE

PMUD ZONE

L=330.00'
R=630.00'
D =17°13'30"
CB=N53° 09' 45"E
CB=188.69'

10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (0.002 AC, 67 SF)

OPEN SPACE (WEST ALLEY PARK)

TAX LOT 66
BLOCK 28005
N/F SHARBELL PLAINSBORO, LLC
DB. 6402, PG. 1822
SUBDIV. SP. 26,076 AC.

OPEN SPACE (CENTRAL PARK)

OPEN SPACE (CENTRAL PARK)

OPEN SPACE (EAST ALLEY PARK)

OPEN SPACE (TRIANGLE PARK)

PMUD ZONE

COAH DEVELOPMENT (86 UNITS) TO BE PERMITTED BY OTHERS

TAX LOT 1
BLOCK 28004
N/F SHARBELL PLAINSBORO INC.
DB./PG. N/A

PROP. 555' SIGHT TRIANGLE (TYP)

LANE A
LANE B
LANE C
LANE D
LANE E
LANE F
LANE G
LANE H
LANE I
LANE J
LANE K
LANE L
LANE M

HUNTER STREET (50' WIDE)

EAST HARTWICK DRIVE (25' WIDE)

L=295.24'
R=600.00'
D =28°11'35"
CB=N30° 24' 10"E
CB=292.23'

PROPOSED 18' LANDSCAPE BUFFER & UTILITY EASEMENT (24,390 SF, 0.56 AC)

R-1 ZONE

TAX LOT 48
N/F ROBERT & CHERYL GESREGAN
DB. 2315, PG. 231

TAX LOT 49
N/F JOSHUA & LISA B. SILVERGLADE
DB. 6320, PG. 1184

TAX LOT 50
N/F LISA A. ROBBINS & K. M. MILLER
DB. 2220, PG. 500

TAX LOT 51
N/F JAMES T. COLLINS JR
DB. 1893, PG. 754

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARGARET J.
DB./PG. N/A

TAX LOT 55
N/F HARRY W. & BERTHA ZOLL
DB./PG. N/A

TAX-LOT 56
N/F ODILIA & MIGUEL A. SANTIZO
DB. 2180, PG. 436

TAX LOT 57
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

TAX LOT 58
N/F MARY-CURTIS HOROWITZ
DB. 6749, PG. 3547

TAX LOT 46
N/F CHIH-YUAN SHIH & CUIFANG XU
DB. 6127, PG. 3206

TAX LOT 47
N/F WILLIAM F. BRILL & YVONNE C.
DB./PG. N/A

VILLAGE DRIVE (50' WIDE PER TAX MAP)

DROCKTON AVENUE (VARIABLE WIDTH)

1 Story Dwelling

2 Story Dwelling

Shed

Gazebo

UP #61428W

UP #61427

UP #61188NT

UP #61189NT

UP #61190NT

UP #61191

UP #61192

UP #61193

UP #61194

UP #61195

UP #61196

UP #61197

UP #61198

UP #61199

UP #61200

UP #61201

UP #61202

UP #61203

UP #61204

UP #61205

UP #61206

UP #61207

UP #61208

UP #61209

UP #61210

UP

THIS PLAN TO BE UTILIZED FOR VEHICLE CIRCULATION PURPOSES ONLY

TAX LOT 102
Capped Fnd.

TAX LOT 162
BLOCK 28003
N/F TAPESTRY AT MONTGOMERY HOA INC.
DB. 6716, PG. 1058

ARH ZONE

PMUD ZONE

OPEN SPACE (STORMWATER MANAGEMENT BASIN)

Flared End Section

Sanitary Manhole

Type 'B' Inlet

Headwall

OPEN SPACE (STORMWATER MANAGEMENT BASIN)

PROPOSED LOT 2 (82,525 SF)

PROPOSED 40 UNIT CONDOMINIUM BUILDING (23,077 SF)

PROP. HOA LANDSCAPE MAINTENANCE EASEMENT (TOWNSHIP DOES NOT ACCEPT MAINTENANCE RESPONSIBILITY OF LANDSCAPE BED IN VILLAGE DRIVE RIGHT-OF-WAY. THE HOA WILL MAINTAIN THE SAME)

(PLAY PARK NORTH)

VILLAGE DRIVE (25' MPH)

TAX LOT 211
BLOCK 28003
N/F SHARBELL PLAINSBORO INC
DB./PG. N/A

HARTWICK DRIVE (50' ROW WIDTH PER TAX MAP)

Curve Data: L=214.49', R=630.00', D =19°30'30", CB=S28° 39' 54"E, CD=202.96'

Curve Data: L=630.00', R=630.00', D =17°13'30", CB=N53° 09' 45"E, CD=188.69'

10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (0.0092 AC, 67 SF)

OPEN SPACE (WEST ALLEY PARK)

OPEN SPACE (CENTRAL PARK)

TAX LOT 66
(BLOCK 28005)
N/F SHARBELL PLAINSBORO, LLC
DB. 6402, PG. 1822
GROSS SF: 26,076 AC.

OPEN SPACE (EAST ALLEY PARK)

OPEN SPACE (TRIANGLE PARK)

OPEN SPACE (PLAY PARK SOUTH)

COAH DEVELOPMENT (86 UNITS) TO BE PERMITTED BY OTHERS

TAX LOT 1
BLOCK 28004
N/F SHARBELL PLAINSBORO INC.
DB./PG. N/A

PROP. 555' SIGHT TRIANGLE (TYP)

LANE A | LANE B | LANE C | LANE D | LANE E | LANE F | LANE G | LANE H | LANE I | LANE J | LANE K | LANE L | LANE M

EAST HARTWICK DRIVE (25' MPH)

HUNTER STREET

BREAKNECK WAY

PROPOSED 18' LANDSCAPE BUFFER & UTILITY EASEMENT (24,390 SF, 0.56 AC)

R-1 ZONE

HC ZONE

REO-3 ZONE

VILLAGE DRIVE (60' ROW WIDTH PER TAX MAP)

TAX LOT 46
N/F CHIH-YUAN SHIH & CUIFANG XU
DB. 6127, PG. 3206

TAX LOT 47
N/F WILLIAM F. BRILL & YVONNE C.
DB./PG. N/A

TAX LOT 48
N/F ROBERT & CHERYL GESREGAN
DB. 2315, PG. 231

TAX LOT 49
N/F JOSHUA & LISA B. SILVERGLADE
DB. 6320, PG. 1184

TAX LOT 50
N/F LISA A. ROBBINS & K. M. MILLER
DB. 2220, PG. 500

TAX LOT 51
N/F JAMES T. COLLINS JR
DB. 1893, PG. 754

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARGARET J.
DB./PG. N/A

TAX LOT 55
N/F HARRY W. & BERTHA ZOLL
DB./PG. N/A

TAX LOT 56
N/F ODILIA & MICHAEL A. SANTIZO
DB. 2180, PG. 436

TAX LOT 57
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

TAX LOT 58
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

1 Story Dwelling

2 Story Dwelling

Shed

GEORGETOWN FRANKLIN TURNPIKE
(A.K.A. COUNTY ROUTE 518)
(VARIABLE ROW WIDTH PER TAX MAP)

NOT TO SCALE

Firetruck – Generic
Overall Length 47.000ft
Overall Width 8.500ft
Max Body Height 10.500ft
Min Body Ground Clearance 1.000ft
Track Width 8.500ft
Lock-to-lock time 6.00s
Max Wheel Angle 40.00°

NOT TO SCALE

GRAPHIC SCALE
-60 0 30 60 120 240
(IN FEET)
1 INCH = 60 FT.

N E S W

REV.	DATE	COMMENTS	BY	CHK'D
16	11/05/19	REV. PER FIELD CHANGES	AJW	
15	09/05/19	REV. PER COUNTY COMMENTS	AJW	
14	07/17/19	REV. PER COUNTY COMMENTS	AJW	
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BJG	
12	05/07/19	REV. PER SPEAR EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JJL	
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW	
10	02/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/JJL	
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/JJL	
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JJL	
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/JJL	
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JJL	
5	07/17/18	REV. PER TOWNSHIP & SRTC COMMENTS	AJW	
4	06/01/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JJL	
3	04/19/18	REV. PER TOWNSHIP, RED & REAC COMMENTS	AJW/JJL	
REV.	DATE	COMMENTS	BY	CHK'D

COMMENT: **FINAL FOR SEWER DESIGN**

DJD — CONSTRUCTION CHECK
09/25/18 — DATE
— CONSTRUCTION CHECK
— DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC.
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 66; TAX MAP SHEET #50
GEORGETOWN FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: VEHICLE CIRCULATION PLAN (FIRE TRUCK)

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 74 OF 77 — Rev. #: 16

Plotted: 11/05/19 – 1:56 PM By: hgnudin
File: P:\DEGPC PROJECTS\0043 Shorbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\043140155V16.dwg, ---> 74 VEHICLE CIRCULATION PLAN (FIRE TRUCK)

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THIS PLAN TO BE UTILIZED FOR VEHICLE CIRCULATION PURPOSES ONLY

ARH ZONE

PMUD ZONE

R-1 ZONE

HC ZONE

REO-3 ZONE

TAX LOT 102

TAX LOT 162
BLOCK 28003
N/F TAPESTRY AT MONTGOMERY HOA INC.
DB. 6716, PG. 1058

OPEN SPACE (STORMWATER MANAGEMENT BASIN)

PROPOSED LOT 2 (82,525 SF)

PROPOSED 40 UNIT CONDOMINIUM BUILDING (23,077 SF)

PROP. HOA LANDSCAPE MAINTENANCE EASEMENT (TOWNSHIP DOES NOT ACCEPT MAINTENANCE RESPONSIBILITY OF LANDSCAPE BED IN VILLAGE DRIVE RIGHT-OF-WAY, THE HOA WILL MAINTAIN THE SAME)

OPEN SPACE (STORMWATER MANAGEMENT BASIN)

OPEN SPACE (PLAY PARK NORTH)

VILLAGE DRIVE (25' MPH)

TAX LOT 211
BLOCK 28003
N/F SHARBELL PLAINSBORO INC
DB./PG. N/A

HARTWICK DRIVE (50' ROW WIDTH PER TAX MAP)

COAH DEVELOPMENT (86 UNITS) TO BE PERMITTED BY OTHERS

TAX LOT 1
BLOCK 28004
N/F SHARBELL PLAINSBORO INC.
DB./PG. N/A

10' WIDE DRAINAGE EASEMENT DEDICATED TO HOMEOWNERS ASSOCIATION (0.002 AC, 67 SF)

OPEN SPACE (WEST ALLEY PARK)

TAX LOT 66
BLOCK 28005
N/F SHARBELL PLAINSBORO, LLC
DB. 6402, PG. 1822
CONTAINS 571,076 SF 26.076 AC.

OPEN SPACE (EAST ALLEY PARK)

OPEN SPACE (CENTRAL PARK)

OPEN SPACE (TRIANGLE PARK)

OPEN SPACE (PLAY PARK SOUTH)

LANE A
LANE B
LANE C
LANE D
LANE E
LANE F
LANE G
LANE H
LANE I
LANE J
LANE K
LANE L
LANE M

EAST HARTWICK DRIVE (25' MPH)

PROPOSED 18' LANDSCAPE BUFFER & UTILITY EASEMENT (24,390 SF, 0.56 AC)

VILLAGE DRIVE (60' ROW WIDTH PER TAX MAP)

BREAKNECK ROAD (50' ROW WIDTH PER TAX MAP)

TAX LOT 46
N/F CHIH-YUAN SHIH & CUIFANG XU
DB. 6127, PG. 3206

TAX LOT 47
N/F WILLIAM F. BRILL & YVONNE C.
DB./PG. N/A

TAX LOT 48
N/F ROBERT & CHERYL GESREGAN
DB. 2315, PG. 231

TAX LOT 49
N/F JOSHUA & LISA B. SILVERGLADE
DB. 6320, PG. 1184

TAX LOT 50
N/F LISA A. ROBBINS & K. M. MILLER
DB. 2220, PG. 500

TAX LOT 51
N/F JAMES T. COLLINS JR
DB. 1893, PG. 754

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DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARGARET J.
DB./PG. N/A

TAX LOT 55
N/F HARRY W. & BERTHA ZOLL
DB./PG. N/A

TAX LOT 56
N/F ODILIA & MIGUEL A. SANTIZO
DB. 2180, PG. 436

TAX LOT 57
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

TAX LOT 58
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

GEORGETOWN FRANKLIN TURNPIKE
(A.K.A. COUNTY ROUTE 518)
(VARIABLE ROW WIDTH PER TAX MAP)

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

GRAPHIC SCALE
-60 0 30 60 120 240
(IN FEET)
1 INCH = 60 FT.

REV.	DATE	COMMENTS	BY
16	11/05/19	REV. PER FIELD CHANGES	AJW
15	09/30/19	REV. PER COUNTY COMMENTS	AJW
14	07/17/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BJG
12	05/07/19	REV. PER SPEAR EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JJL
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW
10	02/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/JJL
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/BJG
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/BJG
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/BJG
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/BJG
5	07/17/18	REV. PER TOWNSHIP & SPRCC COMMENTS	AJW
4	06/27/18	REV. PER RESOLUTION COMPLIANCE	AJW/BJG
3	04/19/18	REV. PER TOWNSHIP, RED & BASIC COMMENTS	AJW/BJG
2	03/19/18	REV. PER COUNTY COMMENTS	AJW/BJG
1	02/20/18	REV. PER TOWNSHIP ENGINEER COMMENTS	AJW/BJG
REV.	DATE	COMMENTS	BY

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18
CONSTRUCTION CHECK DATE

_ _
CONSTRUCTION CHECK DATE

PROJECT: SHARBELL BUILDING COMPANY, LLC.
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 66; TAX MAP SHEET #50
GEORGETOWN FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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Ph: 281.789.6400
901 Mopac Expressway South, Barton Oaks Plaza One, Suite 300, Austin, TX 78746
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NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: VEHICLE CIRCULATION PLAN (GARBAGE)

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 75 OF 77 Rev. #: 16

Plotted: 11/05/19 – 1:57 PM By: bgrubin
File: P:\DEGPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown – Franklin TPKE\dwg\Site Plans\0431401SSV16.dwg, ---> 75 VEHICLE CIRCULATION PLAN (GARBAGE)

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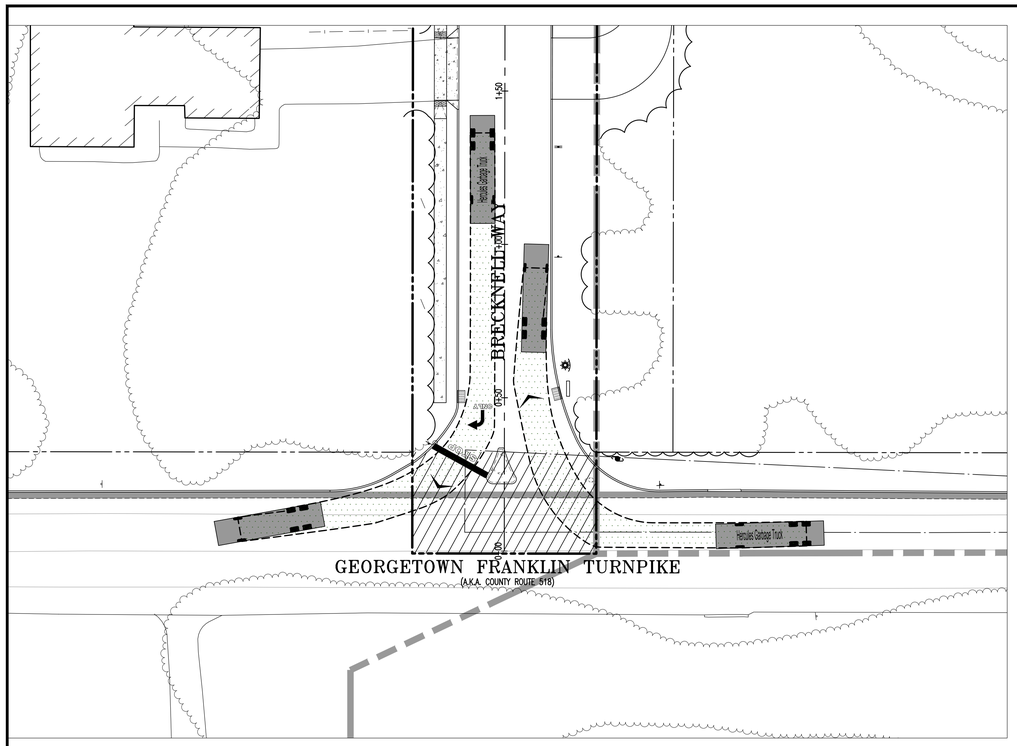
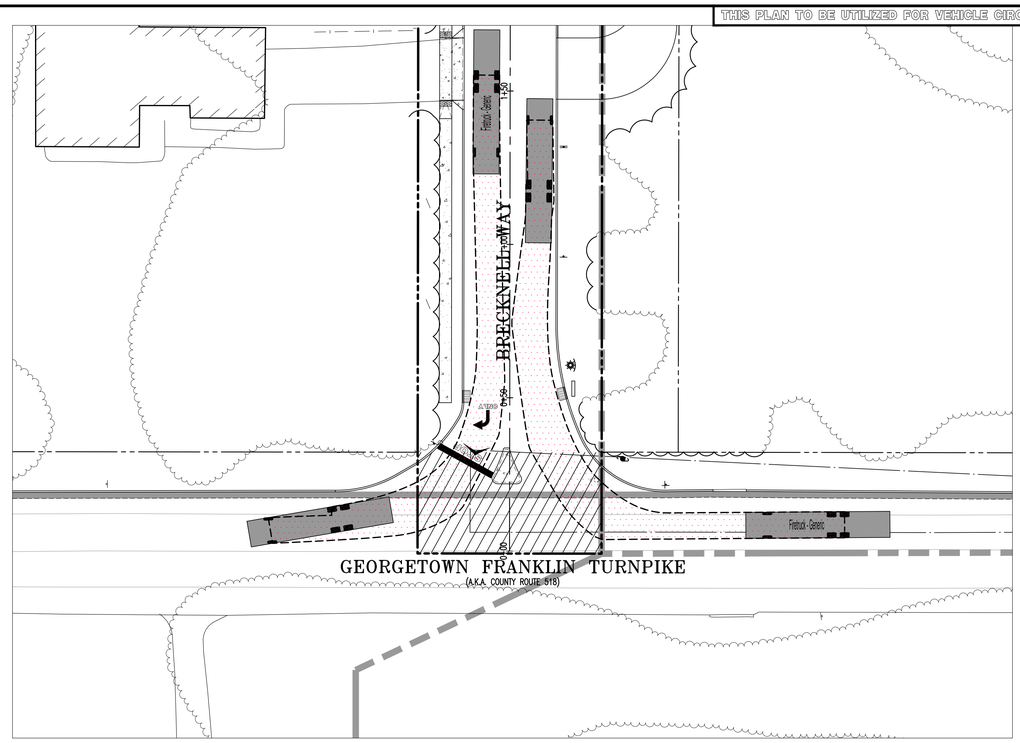
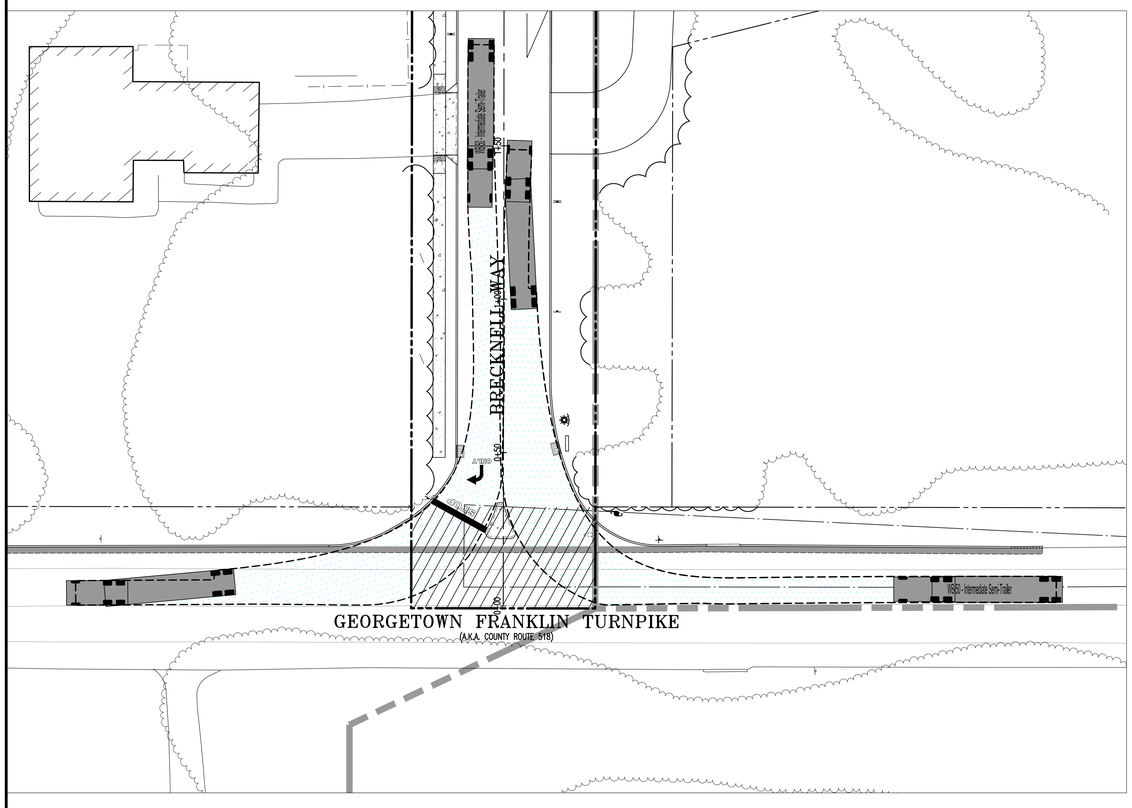
THIS PLAN TO BE UTILIZED FOR VEHICLE CIRCULATION PURPOSES ONLY



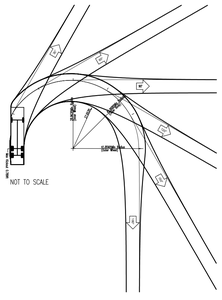
GARBAGE TRUCK PATH



FIRE TRUCK PATH



WB-50 DELIVERY TRUCK PATH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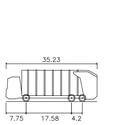
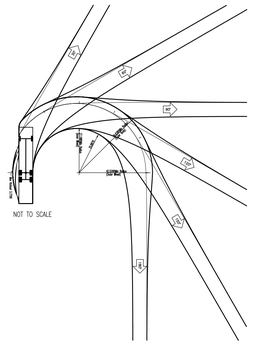


Hercules Garbage Truck	
Overall Length	35.230ft
Overall Width	8.000ft
Overall Body Height	12.073ft
Min Body Ground Clearance	1.161ft
Track Width	8.000ft
Lock-to-lock time	6.0s
Max Wheel Angle	43.90°

NOT TO SCALE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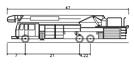
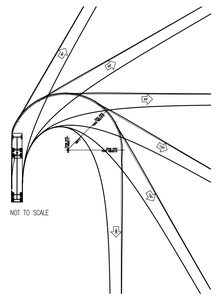


Firetruck - Generic	
Overall Length	47.000ft
Overall Width	8.500ft
Overall Body Height	10.019ft
Min Body Ground Clearance	0.930ft
Track Width	8.500ft
Lock-to-lock time	8.00s
Max Wheel Angle	40.00°

NOT TO SCALE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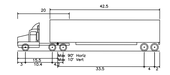
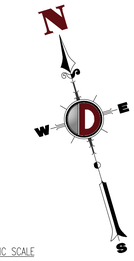


WB-50 - Intermediate Semi-Trailer	
Overall Length	55.000ft
Overall Width	8.500ft
Overall Body Height	13.123ft
Min Body Ground Clearance	1.142ft
Max Tracks Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	17.90°

NOT TO SCALE



GRAPHIC SCALE

-20 0 10 20 40 80

(IN FEET)

1 INCH = 20 FT.

NO.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJW
15	09/03/19	REV. PER COUNTY COMMENTS	AJW
14	07/11/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BSC
12	05/07/19	REV. PER PSE&G EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JDS
11	03/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/JDS
10	02/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/JDS
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/JDS
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JDS
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/JDS
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JDS
5	07/17/18	REV. PER TOWNSHIP & BRCC COMMENTS	AJW
4	06/27/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JDS
3	04/19/18	REV. PER TOWNSHIP, SCD & BRCC COMMENTS	AJW/JDS
2	02/16/18	REV. PER COUNTY COMMENTS	AJW/JDS
1	01/16/18	REV. PER TOWNSHIP COMMENTS	AJW/JDS
NO.	DATE	COMMENTS	BY

COMMENTS: **FINAL FOR SEWER DESIGN**

CONSTRUCTION CHECK: DJD 09/25/18 DATE

CONSTRUCTION CHECK: _ _ DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK: 28005, LOT: 65; TAX MAP SHEET #55
GEORGETOWN FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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Ph: 732.974.0198 ♦ Fax: 732.974.3821
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Ph: 732.974.0198 ♦ Fax: 732.974.3521
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14521 Old Katy Road, Suite 250, Houston, TX 77079
Ph: 281.789.6400
901 Mopac Expressway South, Barton Oaks Plaza One, Suite 300, Austin, TX 78746
Ph: 512.961.8060

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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53540

TITLE: **COUNTY VEHICLE CIRCULATION PLAN**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: **76** OF 77 Rev. #: 16

Plotted: 11/06/19 - 1:59 PM By: bgaudin
File: P:\DEC\PC PROJECTS\0043 Shurbell Development\14-015 Research Rd & Georgetown - Franklin TPKE\dwg\Site Plans\D4314015SV16.dwg, ---> 76 COUNTY VEHICLE CIRCULATION PLAN

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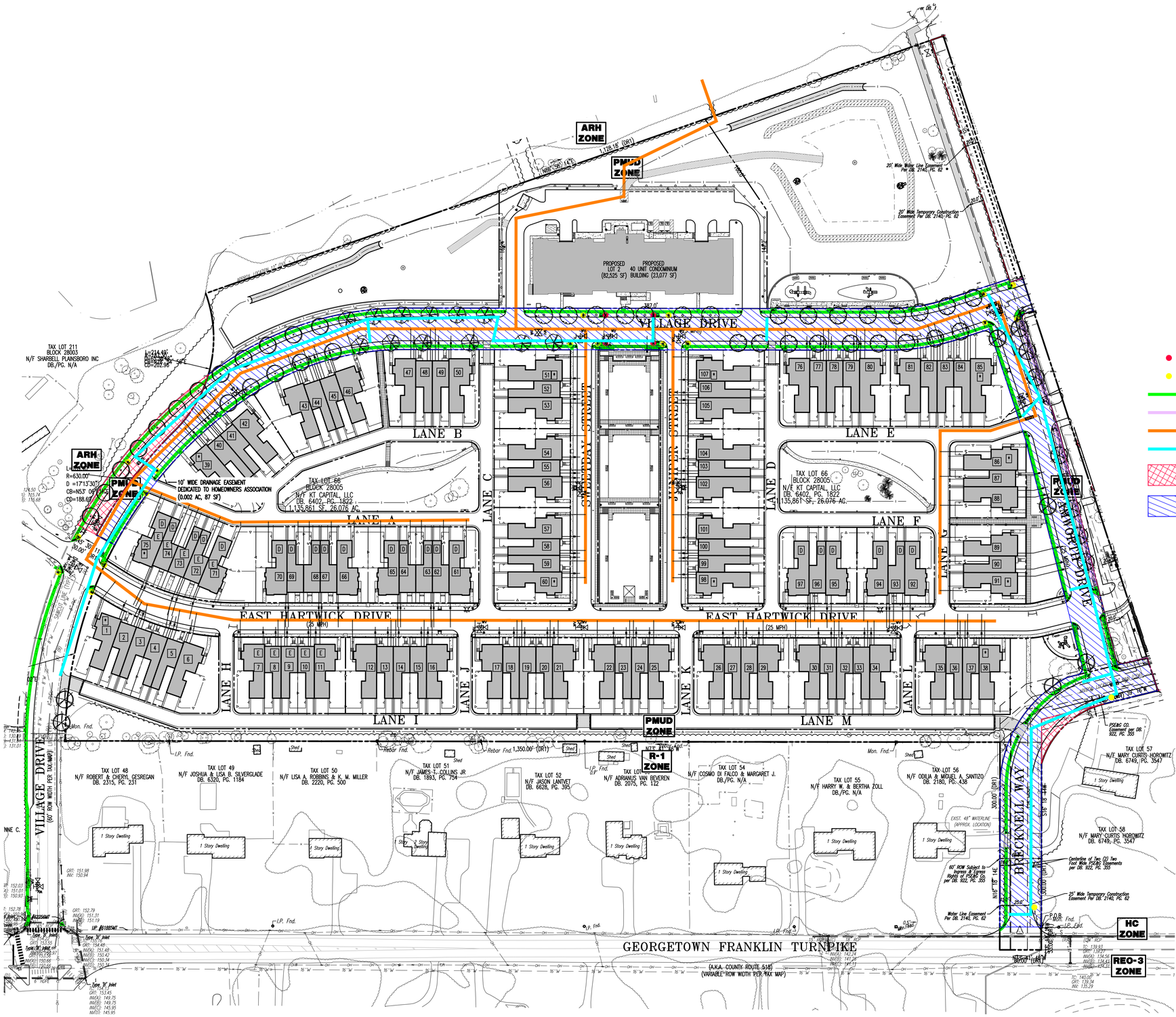

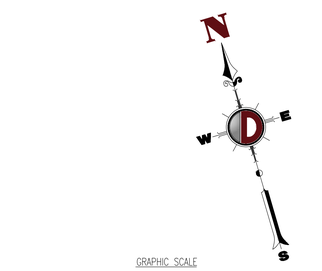

GRAPHIC SCALE

-60 0 30 60 120 240

(IN FEET)
1 INCH = 60 FT.

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NO.	DATE	COMMENTS	BY
16	11/01/19	REV. PER FIELD CHANGES	AJW
15	09/05/19	REV. PER COUNTY COMMENTS	AJW
14	07/17/19	REV. PER COUNTY COMMENTS	AJW
13	05/22/19	REVISIONS PER TOWNSHIP ENGINEER COMMENTS	BJC
12	05/07/19	REV. PER SHEAS EASEMENT CHANGES AND COUNTY COMMENTS	AJW/JH
11	03/27/19	REV. PER TOWNSHIP COMMENTS	AJW/JH
10	02/27/19	REV. PER COUNTY AND TOWNSHIP COMMENTS	AJW/JH
9	12/06/18	REV. PER RESOLUTION COMPLIANCE	AJW/JH
8	11/21/18	REV. PER COUNTY COMMENTS	AJW/JH
7	10/15/18	REV. PER RESOLUTION COMPLIANCE	AJW/JH
6	09/21/18	REV. PER RESOLUTION COMPLIANCE & COUNTY COMMENTS	AJW/JH
5	07/17/18	REV. PER TOWNSHIP & SRTC COMMENTS	AJW
4	06/18/18	REV. PER RESOLUTION COMPLIANCE	AJW/JH
3	04/19/18	REV. PER TOWNSHIP, RED & BRCC COMMENTS	AJW/JH
2	02/16/18	REV. PER COUNTY COMMENTS	AJW/JH
1	01/16/18	PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN	AJW
REV.	DATE	COMMENTS	BY

COMMENTS: **FINAL FOR SEWER DESIGN**

DJD 09/25/18
CONSTRUCTION CHECK DATE

_ _
CONSTRUCTION CHECK DATE

PROJECT: **SHARBELL BUILDING COMPANY, LLC**
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 66; TAX MAP SHEET #50
GEORGETOWN FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE: **TOWNSHIP IMPROVEMENT DEDICATION EXHIBIT**

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	01/16/2018	AJW	JH
PROJECT No:			CHECKED BY:
0043-14-015			JDS

SHEET No: **77** OF 77
Rev. #: 16

Plotted: 11/06/19 – 2:00 PM By: bgnolin
File: P:\DEEPC PROJECTS\0043 Sharbell Development\14-015 Research Rd. & Georgetown — Franklin TPKE\dwg\Site Plans\043140155DE16.dwg, ----> 77 TOWNSHIP IMPROVEMENT DEDICATION EXHIBIT

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MYSTIC DRIVE
(AX ROW WIDTH PER TAX MAP)

HARTWICK DRIVE
(60' ROW WIDTH PER TAX MAP)

RESEARCH ROAD
(60' ROW WIDTH PER TAX MAP)

GEORGETOWN FRANKLIN TURNPIKE
(A.K.A. COUNTY ROUTE 518)
(VARIABLE ROW WIDTH PER TAX MAP)

FM LOT 98
FM LOT 99
FM LOT 100
FM LOT 101
FM LOT 102
FM LOT 161
BLOCK 28003
FM LOT 162
BLOCK 28003
N/F TAPESTRY AT MONTGOMERY HOA INC
DB. 8716, PG. 1058

TAX LOT 211
BLOCK 28003
N/F SHARBELL PLAINSBORO INC
DB./PG. N/A

TAX LOT 7
BLOCK 28004
N/F SHARBELL PLAINSBORO INC
DB./PG. N/A

TAX LOT 66
BLOCK 28005
N/F KT CAPITAL, LLC
DB. 6402, PG. 1822
1,135,861 SF, 26.075 AC.

TAX LOT 65
N/F SUSQUEHANNA PIPELINE, LLC
DB. 6262, PG. 1451

TAX LOT 68
N/F VILLAGES AT MONTGOMERY, LLC
DB. 6875, PG. 5171

TAX LOT 69
N/F VILLAGES AT MONTGOMERY, LLC
DB. 6875, PG. 5171

TAX LOT 46
N/F CHIH-YUAN SHIH & CUIFANG XU
DB. 6127, PG. 3206

TAX LOT 47
N/F WILLIAM F. BRILL & YVONNE C.
DB./PG. N/A

TAX LOT 48
N/F ROBERT & CHERYL GESREGAN
DB. 2315, PG. 231

TAX LOT 49
N/F JOSHUA & LISA B. SILVERGLADE
DB. 6320, PG. 1184

TAX LOT 50
N/F LISA A. ROBBINS & K. M. MILLER
DB. 2220, PG. 500

TAX LOT 51
N/F JAMES T. COLLINS JR
DB. 1893, PG. 754

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARGARET J.
DB./PG. N/A

TAX LOT 55
N/F HARRY W. & BERTHA ZOLL
DB./PG. N/A

TAX LOT 56
N/F ODILIA & MICHEL A. SANTIZO
DB. 2180, PG. 436

TAX LOT 57
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

TAX LOT 58
N/F MARY CURTIS HOROWITZ
DB. 6749, PG. 3547

L=214.49'
R=187.30'
Δ=65°36'48"
CB=N35° 21' 42"E
CD=202.96'

L=189.40'
R=630.00'
Δ=17°13'30"
CB=N59° 33' 20"E
CD=188.69'

N30° 03' 55"E
30.00' (DR1)

S86° 35' 00"E
1,128.18' (DR1)

N67° 15' 00"W
1,350.00' (DR1)

N67° 15' 00"W
60.00' (DR1)

S86° 35' 00"E
595.45' (DR1)

N67° 15' 00"W
172.58' (DR1)

N22° 45' 30"E
300.00' (DR1)

S22° 45' 30"W
300.00' (DR1)

1 Story Building

Shed

Flared End Section

Headwall

Manhole

Yard Inlet

Type 'A' Inlet

Type 'B' Inlet

Type 'C' Inlet

Sanitary Manhole

Mon. Fnd.

Cap Fnd.

Low Fnd.

Rebar Fnd.

P.K. Nail Fnd.

Axel Fnd.

P.O.B.

BLOCK LIMIT LINE

① 60' Wide Township of Montgomery Easement for the Future Extension of Research Road per DB. 115, PG. 46

② Existing Easement for Temporary Cul-de-sac Dedicated to Montgomery Township Per DB. 1112 PG. 48

③ PSE&G CO. and NJBT CO. Easement as Recorded in DB. 1130, PG. 241

④ 20' Wide Water Line Easement Per DB. 1147, PG. 45

⑤ 20' Wide Water Line Easement Per DB. 2140, PG. 62

⑥ 20' Wide Temporary Construction Easement Per DB. 2140, PG. 62

⑦ 60' ROW Subject to Ingress & Egress Rights of PSE&G Co. per DB. 922, PG. 355

⑧ Centerline of Two (2) Two Foot Wide PSE&G Easements per DB. 922, PG. 355

⑨ 25' Wide Temporary Construction Easement Per DB. 2140, PG. 62

⑩ Water Line Easement Per DB. 2140, PG. 62

Easement 'A' per DB. 2126, PG. 758

UP #61428M
UP #61429M
UP #61427
UP #61430M
UP #61433M
UP #61434M
UP #61435M
UP #61436M
UP #61437M
UP #61438M
UP #61439M
UP #62250M
UP #62304

SLOPES TABLE

NUMBER	COLOR	MINIMUM SLOPE	MAXIMUM SLOPE	2D SLOPE AREA
1		0.00%	14.99%	1,073,034 SF
2		15.00%	19.99%	34,248 SF
3		20.00%	24.99%	13,701 SF
4		25.00%	100.00%	14,447 SF

GRAPHIC SCALE
-60 0 30 60 120 240
(IN FEET)
1 INCH = 60 FT.

N
E
S
W

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REV.	DATE	COMMENTS	BY

COMMENTS:
THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

CONSTRUCTION CHECK _____ DATE _____

CONSTRUCTION CHECK _____ DATE _____

PROJECT: SHARBELL BUILDING COMPANY, LLC.
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 65, TAX MAP SHEET #50
690 RESEARCH ROAD & GEORGETOWN - FRANKLIN TURNPIKE
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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JEFFREY D. SPALT
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE:
STEEP SLOPED ANALYSIS EXHIBIT

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	05/07/2018	AJW	JH
PROJECT No:			CHECKED BY:
0043-14-015			JDS

SHEET No: 1 OF 1 | Rev. #: 0

Plotted: 11/26/19 - 2:01 PM, By: bgtaflin
File: P:\DEDPC PROJECTS\0043 Shorbell Development\14-015 Research Rd & Georgetown - Franklin TPKE\dwg\Exhibits (Hearings)\2018-05-07 Hearing\0431401SITEX16.dwg, ----> 78 STEEP SLOPES ANALYSIS EXHIBIT

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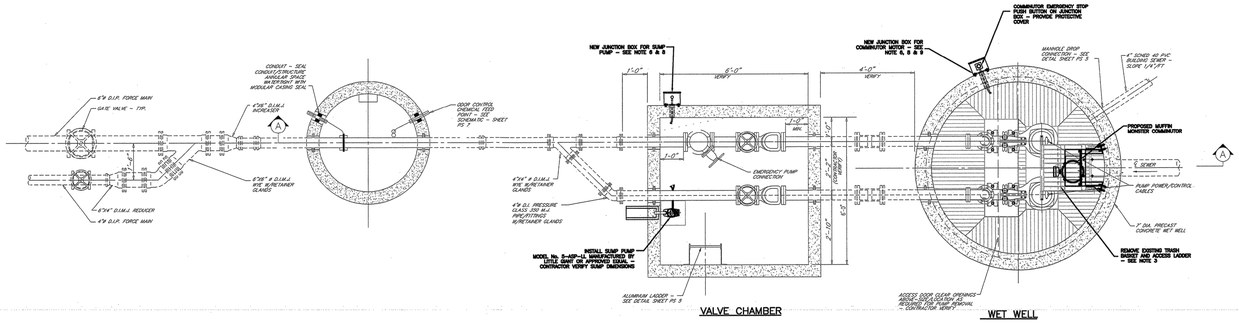
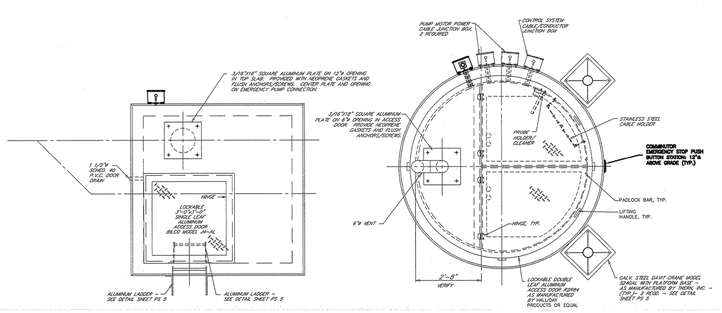
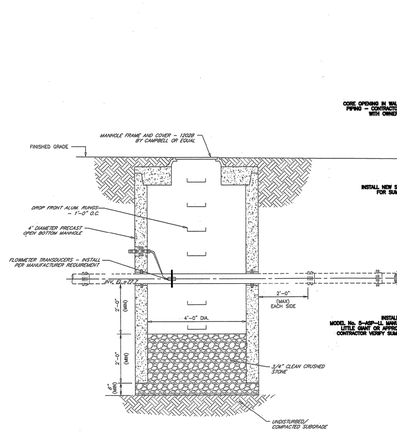


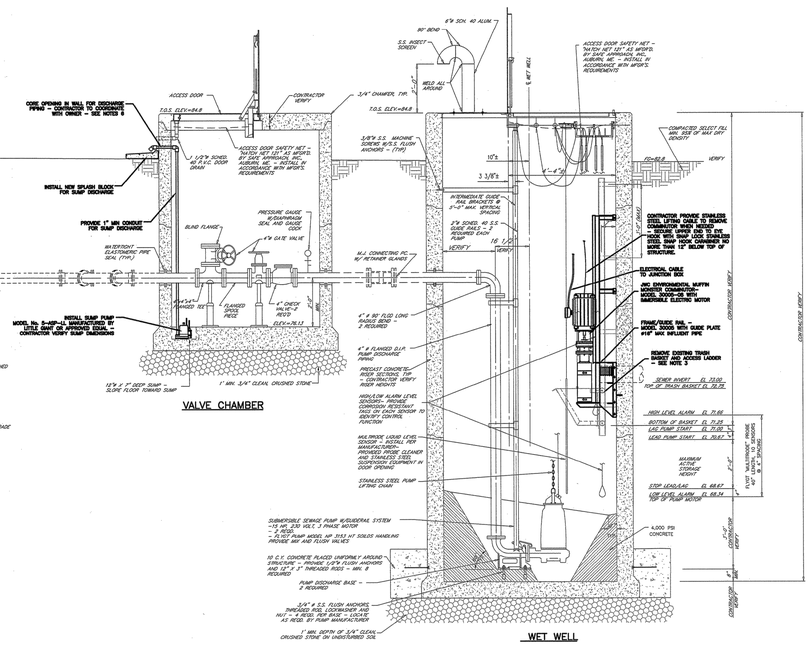
PLAN VIEW BELOW TOP SLABS
N.T.S.



PLAN VIEW ABOVE TOP SLABS
N.T.S.



FLOWMETER TRANSDUCER MANHOLE



SECTION " A-A "
N.T.S.

NOTES:

1. LICENSED ELECTRICIAN SHALL INSPECT AND REPLACE ANY ELECTRICAL EQUIPMENT REQUIRING REPLACEMENT.
2. EACH EXISTING PUMP MUST BE SERVICED BY A FLYGT AUTHORIZED AGENCY. REPLACE IMPELLERS, IF REQUIRED, TO PROVIDE MINIMUM OPERATING POINT OF 253 GPM @ 99.7'.
3. ALL EQUIPMENT TO BE REMOVED SHALL BE DISPOSED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS.
4. CONTRACTOR SHALL VERIFY ALL ELEVATIONS/ DIMENSIONS.
5. CONTRACTOR SHALL VERIFY THICKNESS OF ALL STRUCTURE WALLS/ FLOORS/ TOP SLAB
6. PROVIDE CONDUIT SEAL FOR ALL PENETRATIONS THRU WET WELL AND VALVE CHAMBER WALLS.
7. CONTRACTOR SHALL PROVIDE ONE SPARE PUMP FOR BOTH THE MAIN PUMP STATION AND EAST HARTWICK PUMP STATION.
8. CONTRACTOR SHALL COORDINATE WITH OWNER FOR.
   (A) LOCATION OF COMMINUTOR CONTROLLER.
   (B) ALL COMMINUTOR CONDUIT ROUTING FROM THE WET WELL TO THE CONTROLLER WITHIN THE BUILDING.
   (C) ALL CONDUIT ROUTING FROM THE VALVE CHAMBER TO THE CIRCUIT BREAKER PANELBOARD.
9. CONTRACTOR SHALL VERIFY SPACE IN EXISTING WET WELL JUNCTION BOXES BEFORE INSTALLING NEW JUNCTION BOX. - DO NOT MIX WITH INTRINSICALLY SAFE CIRCUITS.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
2.	REVISED PER KLEINFELDER REVIEW	11/19/18	AFS	ASH
1.	REVISED PER KLEINFELDER REVIEW	11/1/18	AFS/DCS	ASH

11/19/18
DATE OF SIGN.

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PROPOSED MODICIFATIONS –
MAIN PUMP STATION PLAN AND SECTION VIEWS
SHARBELL PLAINSBORO, INC.
SITUATED IN
MONTGOMERY TWP. SOMERSET CO., N.J.
SCALE: N.T.S. AUGUST 17, 2018

DRAWN BY AFS/DCS DATE	FIELD BK	ORDER No.	FILE No.	SHEET No.
CHECKED BY ASH DATE	PAGE	43403-200-22		CE-1

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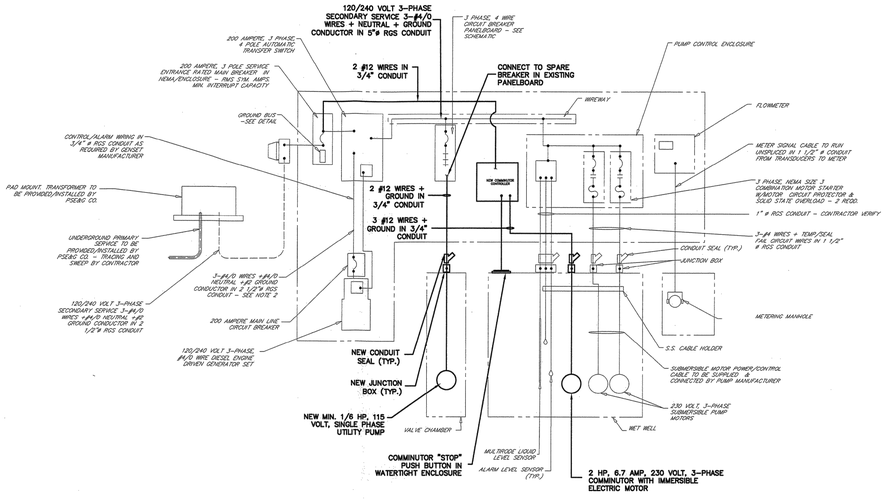
N:\P\43403\Dwg\Main PS\Main PS with Grinder 092118\43403 - Main PS with Grinder 101018.dwg, Layout1, 11/20/2018 2:59:55 PM, eastlo

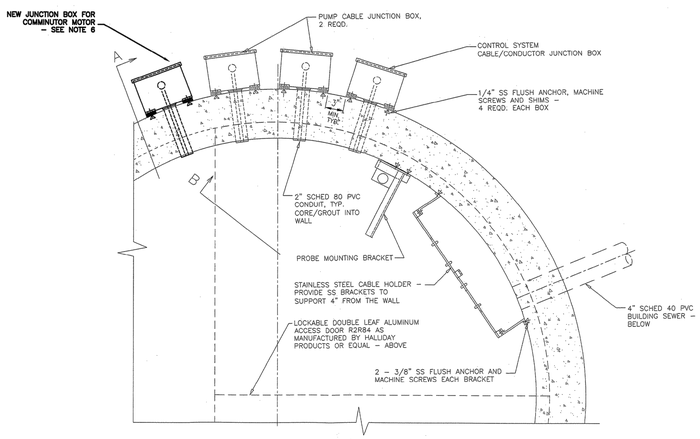


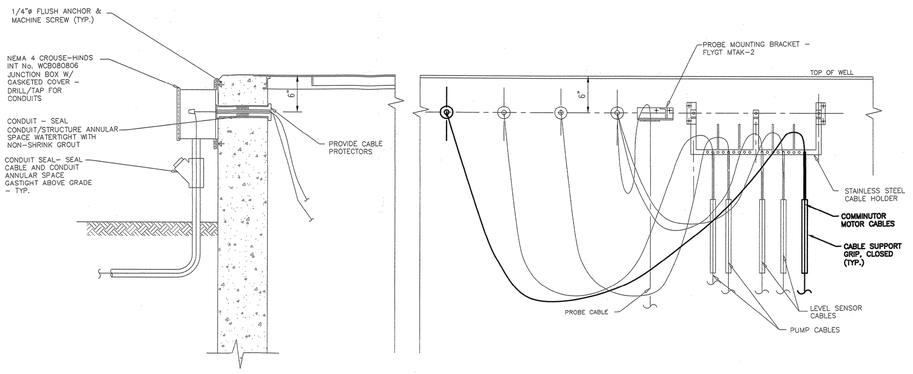
POWER DISTRIBUTION SCHEMATIC

N.T.S.

NOTES:

1. MATERIALS, EQUIPMENT AND ELECTRICAL INSTALLATION SHALL COMPLY WITH NATIONAL FIRE PROTECTION ASSOCIATION ARTICLE 70 - NATIONAL ELECTRIC CODE.
2. THE GENERATOR SET IS NOT A SEPARATELY DERIVED SYSTEM AS DEFINED UNDER NEC ARTICLE 250-30. INSTALL EQUIPMENT GROUNDING CONDUCTOR FROM SERVICE GROUND TO THE TRANSFER SWITCH AND FROM THE TRANSFER SWITCH TO THE GENERATOR FRAME. BONDING JUMPERS FROM THE GENERATOR FRAME TO THE ALTERNATOR GROUNDED CIRCUIT CONDUCTOR MUST BE REMOVED.
3. DRIVEN GROUND RODS SHALL BE PROVIDED AS REQUIRED TO ATTAIN A RESISTANCE TO GROUND NOT EXCEEDING 25 OHMS. GROUND RODS SHALL BE NOT LESS THAN 8 FEET IN LENGTH AND SHALL EXTEND TO PERMANENTLY MOIST SOIL.



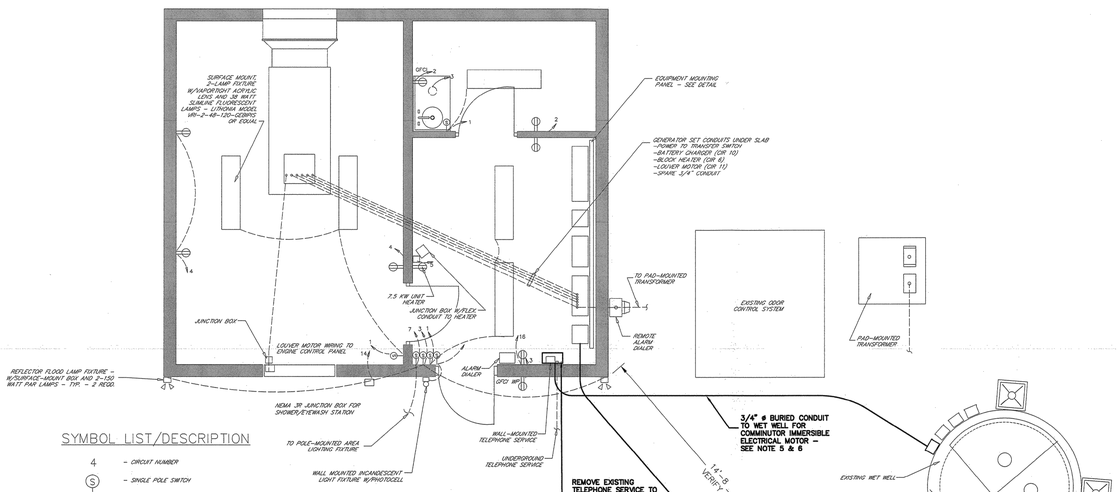


SECTION A-A

SECTION B-B

WET WELL JUNCTION BOX INSTALLATION DETAIL

N.T.S.



SYMBOL LIST/DESCRIPTION

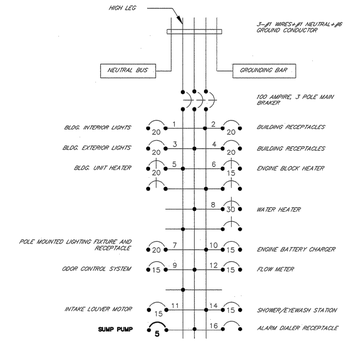
4	- CIRCUIT NUMBER
(S)	- SINGLE POLE SWITCH
⏚	- DUPLEX RECEPTACLE, 20 AMPERE
GFCI	- GROUND FAULT CIRCUIT INTERRUPTING
WP	- WEATHERPROOF COVER/BOX

GENERATOR BUILDING - ELECTRICAL FLOOR PLAN

N.T.S.

NOTES:

1. EXCEPT WHERE INDICATED, CONDUIT AND XXX BOXES MAY BE SURFACE- MOUNTED.



CIRCUIT BREAKER PANELBOARD SCHEMATIC

N.T.S.

NOTES:

1. CIRCUIT BREAKER PANELBOARD SHALL BE LISTED UNDER UNDERWRITERS LABORATORIES, INC. FILE E-8294 AND SHALL COMPLY WITH FEDERAL SPECIFICATIONS W-P-115C, TYPE 1, CLASS 2. - 24 POLE, MINIMUM.
2. PROVIDE 3-#12 WIRES (MIN.) + GROUND IN 1/2 ø CONDUIT FOR 15/20 AMPERE, 120 AND 240 VOLT SINGLE PHASE CIRCUITS NOT EXCEEDING 50 FEET IN LENGTH.

NOTES:

1. LICENSED ELECTRICIAN SHALL INSPECT AND REPLACE ANY EQUIPMENT REQUIRING REPLACEMENT.
2. CONDUCTOR, CONDUIT SIZES SHOWN ARE MINIMUM REQUIRED. CONTRACTOR TO VERIFY EXISTING SIZES AND REPLACE AS REQUIRED.
3. PROPOSED WORK HAS BEEN BOLDED - ADDITIONAL WORK MAY BE REQUIRED FOR EQUIPMENT APPROVED FOR INSTALLATION.
4. CONTRACTOR TO PROVIDE TIME DELAYS FOR BUILDING UNIT HEATER, NEW SUMP PUMP AND NEW COMMINUTOR GRINDER. TIMERS SHALL BE FIELD SELECTABLE FROM 0 - 2 MINUTES.
5. PROVIDE MINIMUM 2' COVER FOR ALL NEW BURIED CONDUIT.
6. CONTRACTOR SHALL VERIFY SPACE IN EXISTING WET WELL JUNCTION BOXES BEFORE INSTALLING NEW JUNCTION BOX - DO NOT MIX WITH INTRINSICALLY SAFE CIRCUITS.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
2.	REVISED PER KLEINFELDER REVIEW	11/19/18	AFS	ASH
1.	REVISED PER KLEINFELDER REVIEW	11/1/18	DCS/AFS	ASH

11/19/18
DATE OF SIGN.

AGHA S. HASAN
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 38659

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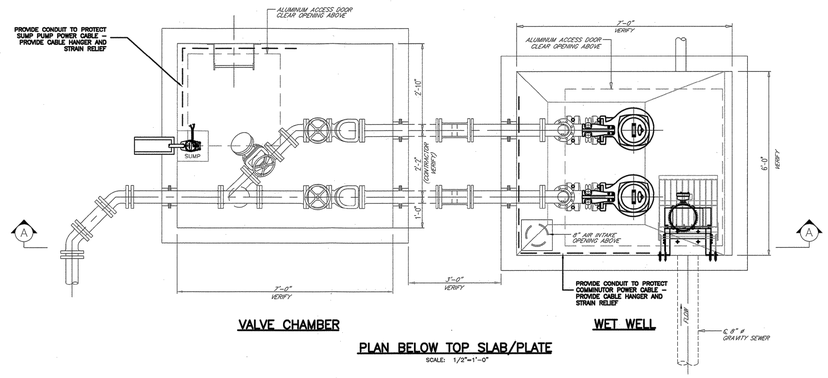
PROPOSED MODIFICATIONS - MAIN PUMP STATION ELECTRICAL DETAILS

SHARBELL PLAINSBORO, INC.
SITUATED IN
MONTGOMERY TOWNSHIP SOMERSET CO., N.J.
SCALE: NOT TO SCALE AUGUST 17, 2018

DRAWN BY AFS/DCS DATE	FIELD BK XXXX PAGE XXX	ORDER No. 43403-200-22	FILE No.	SHEET No. CE-2
CHECKED BY ASH DATE				

N:\P\43403\DWG\MAIN PS\MAIN PS WITH GRINDER 092118\43403 - PS ELEC WITH GRINDER 101018.DWG

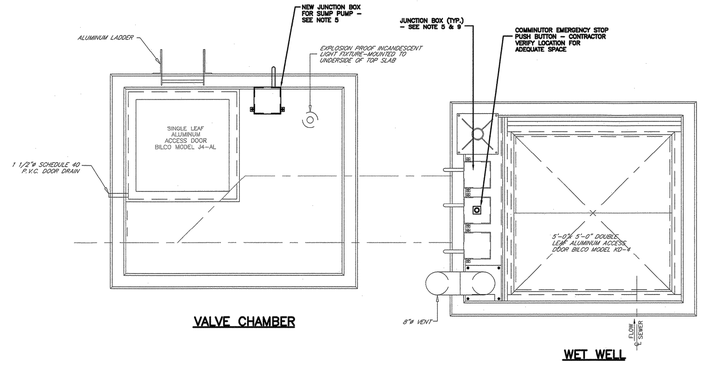
N:\P\43403\dwg\Main PS\Main PS with Grinder 092118\43403 - PS ELEC with Grinder 101018.dwg, ELEC, 11/20/2018 11:47:42 AM, aasilio



VALVE CHAMBER WET WELL

PLAN BELOW TOP SLAB/PLATE

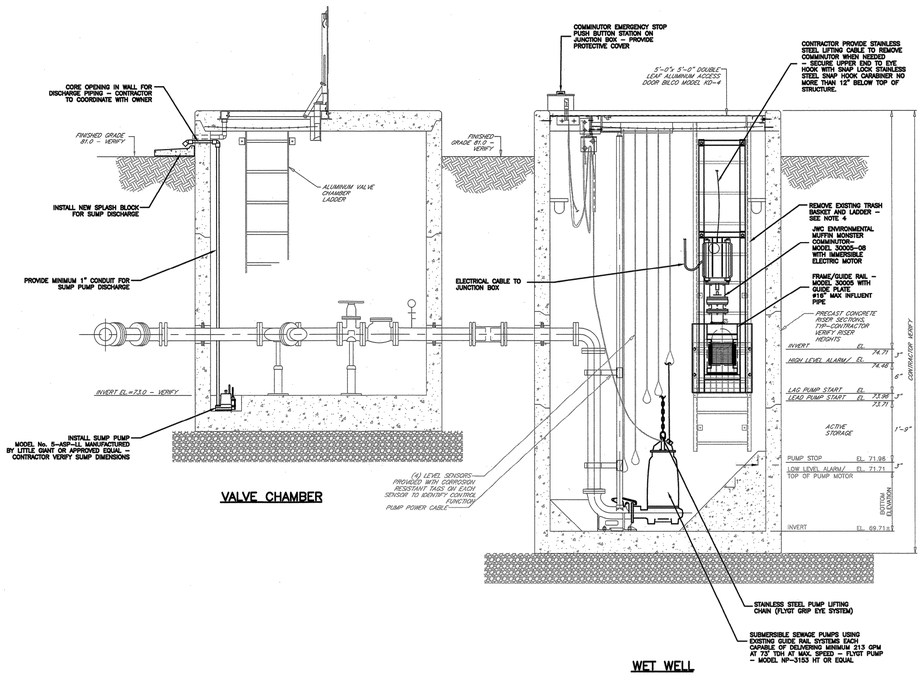
SCALE: 1/2"=1'-0"



VALVE CHAMBER WET WELL

PLAN VIEW ABOVE STRUCTURES

SCALE: 1/2"=1'-0"



VALVE CHAMBER WET WELL

CROSS SECTION 'A–A'

SCALE: 1/2"=1'-0"

NOTES:

1. LICENSED ELECTRICIAN SHALL INSPECT AND REPLACE ANY ELECTRICAL EQUIPMENT REQUIRING REPLACEMENT.
2. CONTRACTOR SHALL VERIFY ALL ELEVATIONS/DIMENSIONS.
3. CONTRACTOR SHALL VERIFY THICKNESS OF ALL STRUCTURE WALLS/ FLOOR/ TOP SLAB.
4. ALL EQUIPMENT TO BE REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS.
5. PROVIDE CONDUIT SEAL FOR ALL PENETRATIONS THRU WET WELL AND VALVE CHAMBER WALLS.
6. CONTRACTOR VERIFY AND RELOCATE/REPLACE GUIDE RAILS AS NECESSARY.
7. CONTRACTOR SHALL PROVIDE ONE SPARE PUMP FOR BOTH THE MAIN PUMP STATION AND EAST HARTWICK PUMP STATION
8. CONTRACTOR SHALL COORDINATE WITH OWNER FOR;
   (A) LOCATION OF COMMINUTOR CONTROLLER.
   (B) ALL COMMINUTOR CONDUIT ROUTING FROM THE WET WELL TO THE CONTROLLER WITHIN THE BUILDING.
   (C) ALL CONDUIT ROUTING FROM THE VALVE CHAMBER TO THE CIRCUIT BREAKER PANELBOARD.
9. CONTRACTOR SHALL VERIFY SPACE IN EXISTING WET WELL JUNCTION BOXES BEFORE INSTALLING NEW JUNCTION BOX. – DO NOT MIX WITH INTRINSICALLY SAFE CIRCUITS.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
2.	REVISED PER KLEINFELDER REVIEW	11/19/18	AFS	ASH
1.	KLEINFELDER COMMENTS ADDRESSED	11/1/18	AFS/DCS	ASH

11/19/18
DATE OF SIGN.

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N.J. PROFESSIONAL ENGINEER LIC. NO. GE 38659

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211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
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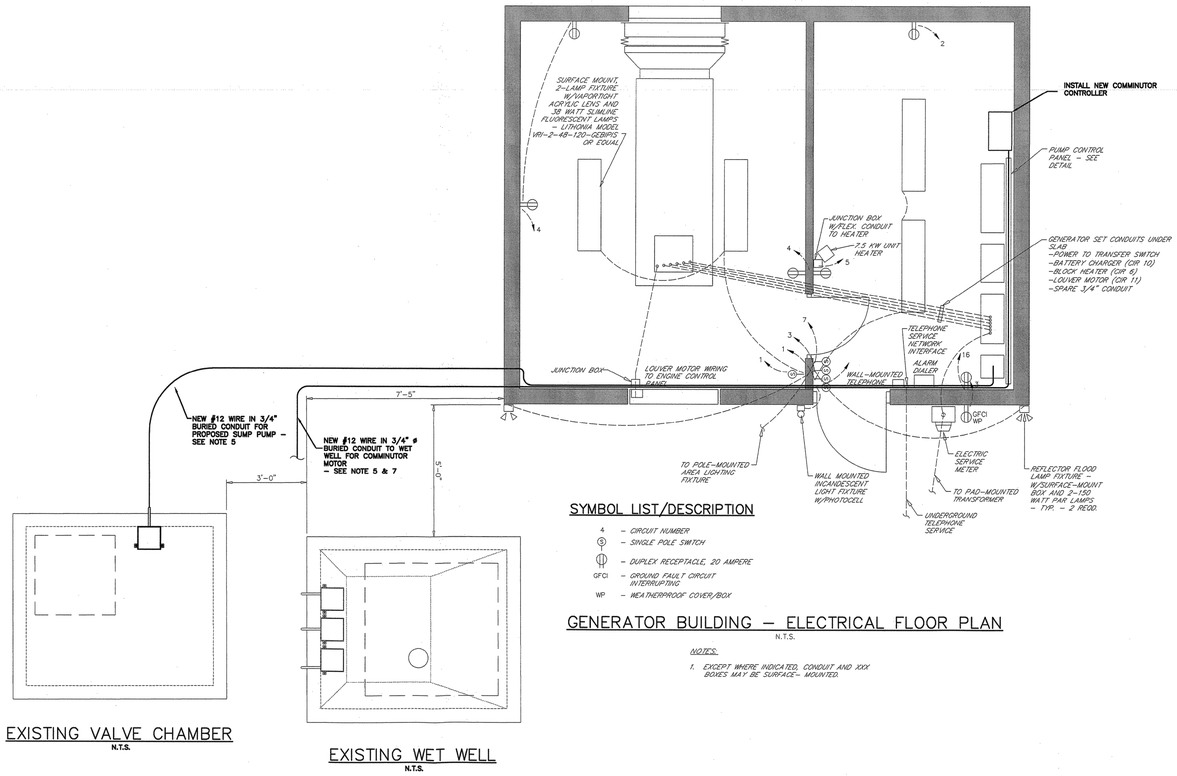
PROPOSED MODIFICATIONS –
EAST HARTWICK PUMP STATION
PLAN AND SECTION VIEWS
SHARBELL PLAINSBORO, INC.
SITUATED IN
MONTGOMERY TOWNSHIP SOMERSET CO., N.J.
SCALE: NOT TO SCALE AUGUST 17, 2018

DRAWN BY AFS/DCS DATE	FIELD BK XXXX PAGE XXX	ORDER No. 43403–200–22	FILE No. XX–X–X	SHEET No. CE-3
CHECKED BY ASH DATE				

N:\P\43403\DWG\EAST HARTWICK PS\43403 EH PS WITH GRINDER 10–05–18\43403–PS–PLAN–SECTION W GRINDER 101018.DWG

V:\PA2K\ROA\eng\East Hartwick PS\43403 EH PS with grinder 10-05-18\43403-PS-PLAN-SECTION w Grinder 101018.dwg, PROPOSED-PS, 11/20/2018 2:08:03 PM, aselbo



SYMBOL LIST/DESCRIPTION

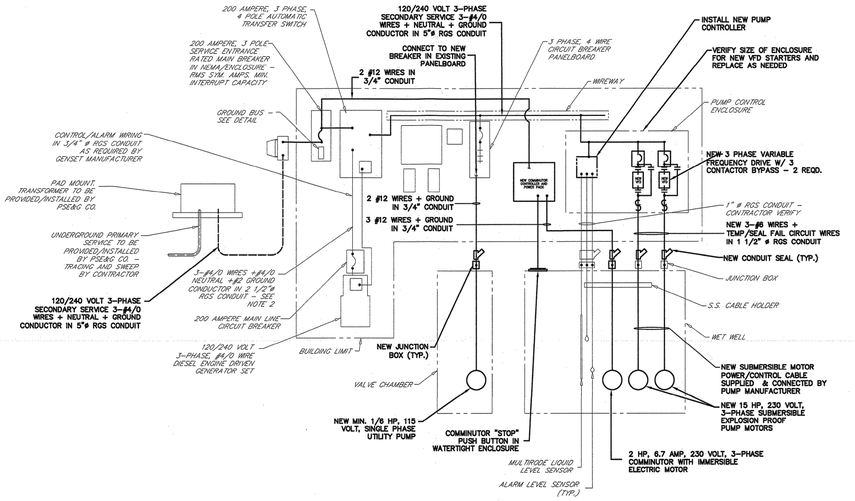
4 – CIRCUIT NUMBER
S – SINGLE POLE SWITCH
– DUPLEX RECEPTACLE, 20 AMPERE
GFCI – GROUND FAULT CIRCUIT INTERRUPTING
WP – WEATHERPROOF COVER/BOX

GENERATOR BUILDING – ELECTRICAL FLOOR PLAN

N.T.S.

NOTES:

1. EXCEPT WHERE INDICATED, CONDUIT AND XXX BOXES MAY BE SURFACE– MOUNTED.

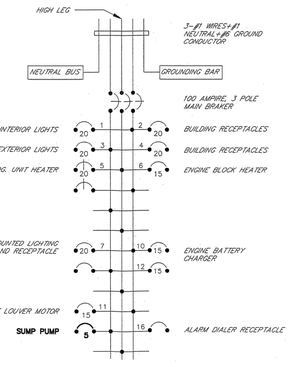


POWER DISTRIBUTION SCHEMATIC

N.T.S.

NOTES:

1. MATERIALS, EQUIPMENT AND ELECTRICAL INSTALLATION SHALL COMPLY WITH NATIONAL FIRE PROTECTION ASSOCIATION ARTICLE 70 – NATIONAL ELECTRIC CODE.
2. THE GENERATOR SET IS NOT A SEPARATELY DERIVED SYSTEM AS DEFINED UNDER NEC ARTICLE 250–30. INSTALL EQUIPMENT GROUNDING CONDUCTOR FROM SERVICE GROUND TO THE TRANSFER SWITCH AND FROM THE TRANSFER SWITCH TO THE GENERATOR FRAME. BONDING JUMPERS FROM THE GENERATOR FRAME TO THE ALTERNATOR GROUNDED CIRCUIT CONDUCTOR MUST BE REMOVED.
3. DRIVEN GROUND RODS SHALL BE PROVIDED AS REQUIRED TO ATTAIN A RESISTANCE TO GROUND NOT EXCEEDING 25 OHMS. GROUND RODS SHALL BE NOT LESS THAN 8 FEET IN LENGTH AND SHALL EXTEND TO PERMANENTLY MOIST SOIL.



CIRCUIT BREAKER PANELBOARD SCHEMATIC

N.T.S.

NOTES:

1. CIRCUIT BREAKER PANELBOARD SHALL BE LISTED UNDER UNDERWRITERS LABORATORIES, INC. FILE E–6294 AND SHALL COMPLY WITH FEDERAL SPECIFICATIONS W–P–115C, TYPE 1, CLASS 2. – 24 POLE, MINIMUM.
2. PROVIDE 2–#12 WIRES (MIN.) + GROUND W 1/2 # CONDUIT FOR 15/20 AMPERE, 120 AND 240 VOLT SINGLE PHASE CIRCUITS NOT EXCEEDING 50 FEET IN LENGTH.

EXISTING VALVE CHAMBER

N.T.S.

EXISTING WET WELL

N.T.S.

NOTES:

1. LICENSED ELECTRICIAN SHALL INSPECT AND REPLACE ANY EQUIPMENT REQUIRING REPLACEMENT.
2. CONDUCTOR, CONDUIT SIZES SHOWN ARE MINIMUM REQUIRED. CONTRACTOR TO VERIFY EXISTING SIZES AND REPLACE AS REQUIRED.
3. PROPOSED WORK HAS BEEN BOLDED – ADDITIONAL WORK MAY BE REQUIRED FOR EQUIPMENT APPROVED FOR INSTALLATION.
4. CONTRACTOR TO PROVIDE TIME DELAYS FOR BUILDING UNIT HEATER, NEW SUMP PUMP AND NEW COMMINUTOR GRINDER. TIMERS SHALL BE FIELD SELECTABLE FROM 0 – 2 MINUTES.
5. PROVIDE MINIMUM 2' COVER FOR ALL NEW BURIED CONDUIT.
6. CONTRACTOR USE EXISTING CONDUITS FOR WIRING TO NEW PUMPS.
7. CONTRACTOR SHALL VERIFY SPACE IN EXISTING WET WELL JUNCTION BOXES BEFORE INSTALLING NEW JUNCTION BOX. – DO NOT MIX WITH INTRINSICALLY SAFE CIRCUITS.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
2.	REVISED PER KLEINFELDER REVIEW	11/19/18	AFS	ASH
1.	REVISED PER KLEINFELDER REVIEW	11/1/18	DCS	ASH

11/19/16
DATE OF SIGN.

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PROPOSED MODIFICATIONS –
EAST HARTWICK PUMP STATION
ELECTRICAL DETAILS
SHARBELL PLAINSBORO, INC.
SITUATED IN
MONTGOMERY TOWNSHIP SOMERSET CO., N.J.
SCALE: NOT TO SCALE AUGUST 17, 2018

DRAWN BY AFS/DCS DATE	FIELD BK XXXX PAGE XXX	ORDER No. 43403–200–22	FILE No. XX–X–X	SHEET No. CE-4
CHECKED BY ASH DATE				

N:\P\43403\DWG\EAST HARTWICK PS\43403 EH PS WITH GRINDER 10–05–18\43403–EH–PROP–ELECTRICAL DETAILS W GRINDER 101018.DWG

N:\P\43403\dwg\East Hartwick PS\43403 EH PS with grinder 10-05-18\43403-EH-PROP-ELECTRICAL DETAILS w Grinder 101018.dwg, ELEC, 11/20/2018 11:46:19 AM, asadmin

PROP. RIGHT-OF-WAY DEDICATION TO MONTGOMERY TOWNSHIP (PORTION OF TAX LOT 211, BLOCK 28003) CONTAINING (7,661 SF) (0.18 AC)

ARH ZONE

PMUD ZONE

LANE B

LANE C

SWEETBAY STREET

JUNIPER STREET

LANE D

LANE E

LANE F

LANE G

TAX LOT 66
BLOCK 28005
N/F KT CAPITAL, LLC
DB. 6402, PG. 1822
1,135,861 SF, 26.076 AC.

OPEN SPACE (WEST ALLEY PARK)

OPEN SPACE (CENTRAL PARK)

OPEN SPACE (EAST ALLEY PARK)

OPEN SPACE (TRAN

OPEN SPACE (PLAY PARK SOUTH)

LANE A

EAST HARTWICK DRIVE (25 MPH)

LANE H

LANE I

LANE J

LANE K

LANE L

LANE M

SANITARY MANHOLE
RIM: 137.56
INV(A): 124.34
INV(B): 124.30

CONNECT TO EX. 8" STUB ASSUMED INV: 131.40

8" SDR-35 PVC 172 LF SAN. SEWER @ 0.50% SL.

PROP. 4'ø SAN. MH #1
RIM: 145.20
INV (8"): 132.00

PROP. 22' WIDE TOWNSHIP OF MONTGOMERY SANITARY SEWER EASEMENT

PROP. 4'ø STORM MH
STORM LINE #104
RIM: 138.40
INV IN (A): 131.56
INV IN (B): 134.39
INV OUT (C): 131.56

PROP. DBL TYPE 'E' INLET
STORM LINE #103
GRT: 146.27
INV OUT (15"):139.27

PROP. TYPE 'E' INLET
STORM LINE #101
GRT: 146.85
INV IN (15"): 142.92
INV OUT (15"):142.82

PROP. 4'ø SAN. MH #2
RIM: 151.30
INV (8"): 134.00

8" SDR-35 PVC 400 LF SAN. SEWER @ 0.50% SL.

8" SDR-35 PVC 315 LF SAN. SEWER @ 0.50% SL.

PROPOSED FUTURE SANITARY SEWER LINE (BY OTHERS)

8" SDR-35 PVC 400 LF SAN. SEWER @ 0.50% SL.

PROP. 4'ø STORM MH
STORM LINE #305
RIM: 145.02
INV IN (15"): 137.23
INV OUT (15"):137.13

PROP. 4'ø SAN. MH #4
RIM: 145.75
INV (8"): 137.58

PROP. 4'ø SAN. MH #3
RIM: 151.08
INV (8"): 135.58

PROP. 4'ø STORM MH
STORM LINE #304
RIM: 146.62
INV IN (A): 141.98
INV IN (B): 140.29
INV OUT (C): 140.19

PROP. 22' WIDE TOWNSHIP OF MONTGOMERY SANITARY SEWER EASEMENT

PROPOSED FUTURE SANITARY SEWER LINE (BY OTHERS)

PROP. FUTURE INDIVIDUAL RESIDENTIAL CONNECTION (BY OTHERS) IN BLANKET EASEMENT (9-TYP.)

PROP. DBL TYPE 'E' INLET
STORM LINE #100
GRT: 151.14
INV OUT (15"):147.35

NOTE: AT THE TIME OF CONSTRUCTION OF THE SEWER EXTENSION, CONTRACTOR TO CONFIRM AS-BUILT INVERTS OF STORM INFRASTRUCTURE AT CROSSINGS WITH SANITARY SEWER MAIN AND PROVIDE A MIN. 1.5 FT SEPARATION.

PMUD ZONE

R-1 ZONE

VILLAGE DRIVE (60' ROW WIDTH PER TAX MAP)

BRECKNELL DRIVE (VARIABLE WIDTH)

SANITARY MANHOLE
RIM: 142.35
INV(A): 130.89
INV(B): 131.01
INV(C): 131.01

TAX LOT 48
N/F ROBERT & CHERYL GESREGAN
DB. 2315, PG. 231

TAX LOT 49
N/F JOSHUA & LISA B. SILVERGLADE
DB. 6320, PG. 1184

TAX LOT 50
N/F LISA A. ROBBINS & K. M. MILLER
DB. 2220, PG. 500

TAX LOT 51
N/F JAMES T. COLLINS JR
DB. 1893, PG. 754

TAX LOT 52
N/F JASON LANTVET
DB. 6628, PG. 395

TAX LOT 53
N/F ADRIANUS VAN BEVEREN
DB. 2075, PG. 172

TAX LOT 54
N/F COSMO DI FALCO & MARGARET J.
DB./PG. N/A

TAX LOT 55
N/F HARRY W. & BERTHA ZOLL
DB./PG. N/A

TAX LOT 56
N/F ODILIA & MIGUEL A. SANTIZO
DB. 2180, PG. 438

EXIST. 48" WATERLINE (APPROX. LOCATION)

1 Story Dwelling

2 Story Dwelling

Shed

UP 852SQFT

0.5'

GRADING/UTILITY GRAPHIC LEGEND

PROPERTY LINE (PARCEL IN QUESTION)
OFF-SITE PROPERTY LINES

EXIST. CABLE LINE	× 8.9	EXIST. SPOT ELEVATIONS	PROP. GRADE SPOT ELEV.
PROP. CABLE LINE	×G 8.90	EXIST. GUTTER ELEV.	PROP. TOP OF CURB & FINISHED GRADE ELEV.
EXIST. ELECTRIC LINE	×TC 8.90	EXIST. TOP OF CURB ELEV.	
PROP. ELECTRIC LINE	×FF 8.90	EXIST. FINISH FLOOR ELEV.	PROP. FINISHED FLOOR ELEV.
EXIST. FIBER OPTIC LINE	×GF 8.90	EXIST. GARAGE FLOOR ELEV.	PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
PROP. FIBER OPTIC LINE		EXIST. FIRE HYDRANT	
EXIST. FUEL LINE		EXIST. WATER VALVE	
PROP. FUEL LINE		EXIST. GAS VALVE	PROP. TOP OF EXTENDED CURB, (GK) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (GL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB
EXIST. OVERHEAD WIRES		EXIST. GAS METER	
PROP. OVERHEAD WIRES		EXIST. ELECTRIC METER	
EXIST. TELEPHONE LINE		EXIST. ELECTRIC BOX	PROP. DIRECTION OF DRAINAGE FLOW ARROW
PROP. TELEPHONE LINE		EXIST. CLEAN OUT	
EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)		EXIST. WELL	PROP. WATER VALVE
		EXIST. WATER SHUT OFF VALVE	PROP. GAS VALVE
PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)		EXIST. TELEPHONE BOX	
		EXIST. CABLE TV BOX	
EXIST. WATER LINE		EXIST. UTILITY POLE	PROP. STORM CLEANOUT
PROP. WATER LINE		EXIST. GUY WIRE	PROP. SANITARY CLEANOUT
EXIST. SANITARY SEWER LINE		EXIST. LIGHT POLE	PROP. ADA RAMP NUMBER (REFER ADA RAMP DETAILS)
		EXIST. BUILDING LIGHT	
PROP. SANITARY SEWER LINE		EXIST. SHOE BOX LIGHT	PROP. AREA LIGHT
		EXIST. COBRA LIGHT POLE	PROP. OUTLET CONTROL STRUCTURE
EXIST. STORM DRAIN LINE		EXIST. TRAFFIC SIGNAL POLE	PROP. DRAINAGE MANHOLE
PROP. STORM DRAIN LINE		EXIST. MANHOLE	PROP. SANITARY SEWER MANHOLE
EXIST. MINOR CONTOUR & ELEVATION		EXIST. "A" INLET	PROP. "A" INLET
EXIST. MAJOR CONTOUR & ELEVATION		EXIST. "B" INLET	PROP. "B" INLET
PROP. FINISH GRADE CONTOUR & ELEVATION		EXIST. "C" INLET	PROP. "C" INLET
EXIST. MONITORING WELL		EXIST. YARD INLET	PROP. YARD INLET
APPROX. TEST PIT LOCATION		EXIST. FLARED END SECTION	PROP. FLARED END SECTION
		EXIST. HEADWALL	PROP. HEADWALL

GRAPHIC SCALE
-40 0 20 40 80 160
(IN FEET)
1 INCH = 40 FT.

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REV.	DATE	COMMENTS	BY
1	02/13/18	REV. PER XXX	

COMMENTS: THIS PLAN SHALL NOT BE FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DJD 09/25/18 DATE
CONSTRUCTION CHECK

_ _ DATE
CONSTRUCTION CHECK

PROJECT: SHARBELL BUILDING COMPANY, LLC.
PRELIMINARY AND FINAL MAJOR SUBDIVISION & SITE PLAN
BLOCK 28005, LOT 66; TAX MAP SHEET #50
601 GEORGETOWN-FRANKLIN TURNPIKE & RESEARCH ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

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Ph: 732.974.0198 • Fax: 732.974.3531
8 Robbins Street, Suite 102, Toms River, New Jersey 08753
Ph: 732.974.0198 • Fax: 732.974.3531
1301 Central Expressway South, Suite 210, Allen, TX 75013
Ph: 214.509.0396
14521 Old Katy Road, Suite 200, Houston, TX 77079
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PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 40766

JEFFREY HABERMAN
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 53560

TITLE:
FUTURE TOWNSHIP SANITARY SEWER EXTENSION EXHIBIT

SCALE:	DATE:	DRAWN BY:	DESIGNED BY:
AS SHOWN	12/11/2018	BG	JH
PROJECT No: 0043-14-015			CHECKED BY: JDS

SHEET No: 1 OF 1 Rev. #: 1

Plotted: 11/06/19 - 2:08 PM By: bgaudin
File: P:\DEDPC PROJECTS\0043 Sharbell Development\14-015 Research Rd & Georgetown - Franklin TPKE\dwg\Exhibits (Misc)\2019-02-26 Township Sanitary Sewer Extension Exhibit\043140150E02.dwg, ----> 86 Township Sanitary

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